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OCKHAM

Philosophical Writings

PHILOSOPHICAL WRITINGS

A Selection

WILLIAM OF OCKHAM

Translated, with an Introduction, by

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William of Ockham: *c.* 1280-1349

. . . . . .

To Pacificus Borgmann, O.F.M.

Nihil obstat:

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PREFACE

ANY selection from the works of a philosopher, even if it purports to give a general picture of his thought, will at best be an introduction. It can present only parts or pieces of his system, usually taken out of their context and organised according to the view of the compiler. None the less, such a procedure has this advantage : the reader is informed by the philosopher himself about his own thought.

The present selection suffers not only from the shortcomings necessarily connected with such a work, but also from difficulties of its own. First, and this is a major handicap, there are hardly any critical editions of the works of Ockham. Birch's edition of *De sacramento altaris* cannot satisfy a critical reader, and the few texts edited by the present writer are of minor importance for our present purpose.

The main task, therefore, was to prepare texts which could be considered reliable. For that reason I have compared all the Latin texts with a number of good manuscripts. Though they make no claim to be critical in the technical sense of the word, nevertheless they can be rated as *safe* texts. I hope to be excused from indicating and describing these manuscripts, since most of them have already been given place in our various publications.

A second handicap derives from the highly technical Latin used by Ockham. His language makes it impossible simply to *read* him ; he needs to be studied, or rather, as St Bonaventure demanded for one of his writings, the *Venerabilis Inceptor*, must be *ruminated.*

The purpose of the present translation is to make this ruminating process less laborious for the ordinary reader, although my chief concern was to render faithfully Ockham's thought. And to attain this latter objective,

I have frequently sacrificed fluency of style. As a further help in understanding the texts, I have added an Introduction to Ockham's philosophy. In its general outline, this Introduction follows the order of the selection.

I am deeply indebted to my colleague and confrère, the Rev. Allan Wolter, O.F.M., for the tedious work of checking the translation. With gratitude I dedicate this work to my teacher and friend, the Rev. Pacificus Borgmann, O.F.M., who not only first led me to an understanding of Ockham's thought, but also, by many personal sacrifices, has made possible my studies in the field of medieval philosophy.

PHILOTHEUS BOEHNER

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EDITORIAL NOTE

FATHER PHILOTHEUS BOEHNER died suddenly, on 22 May 1955. At that time the present volume was in the proof-stage. In seeing the book through the press, it was considered proper to alter his text and translation as little as possible. Changes were necessary to correct obvious slips, to emend those sentences which Father Boehner himself had queried, and to clarify a number of passages of particular difficulty. In accordance with his wishes, the Bibliographical Note was revised and enlarged.

Special thanks are due to Mr Peter Geach, Lecturer in Philosophy at the University of Birmingham, for many valuable suggestions and helpful comments. Mr Storrs McCall, of McGill University, kindly assisted in correcting the proofs. I also wish to express my gratitude to Father Eligius Buytaert, O.F.M., Father Boehner's successor as Director of the Franciscan Institute, both for his help in compiling the bibliography and for his readiness to answer queries which arose in the last stages.

To arrive at a just estimate of Ockham's thought and to remove the many misconceptions which for centuries have stood in the way of a true understanding of the Franciscan master, was the aim to which Father Boehner devoted much of his scholarly work. With this end in mind, he accepted our invitation to prepare a representative selection of texts for the present series. At the same time, he was engaged in laying the foundation for the first comprehensive critical edition of Ockham's philosophical and theological works. His untimely death cut short his own participation in this design ; but thanks to the provisions he made, this important undertaking will be carried on by the Franciscan Institute.

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INTRODUCTION

I. BACKGROUND

SCHOLASTIC philosophy found its mature expression during the thirteenth and fourteenth centuries. The scholasticism of the thirteenth century was predominantly receptive and constructive in its tendencies. Its chief exponents were mainly interested in absorbing the wealth of philosophical learning that came to them from Greek and Arabic sources, and in constructing articulate systems comprising the thought of their time. Their work can perhaps best be called 'synthetic'. By contrast, fourteenth-century scholasticism was occupied in sifting, revising and adapting its rich legacy of ideas. Its chief exponents focused their attention on the structure of the traditional philosophy itself; they tested its basis and examined the solidity of its parts. Their philosophy may therefore be characterised by the term 'critical'. These labels must not, however, be taken as mutually exclusive. Neither the thirteenth nor the fourteenth century was without originality; and while in the thirteenth century a sound sense of criticism was visibly active and alive, the fourteenth proved itself by no means incapable of building systems.

In one aspect the two centuries are two parts of a single whole—the period of classical scholasticism. There is a tendency on the part of historians who have mainly studied the thirteenth century to look upon them as two distinct or even opposing periods. In their view the thirteenth century is unmistakably the golden age, the fourteenth a period of decline and decadence. Yet it remains an historical fact that there was a unity of civilisation and religion ensured by an agreement in holding the dogmas of the Catholic faith, dogmas which it was their main endeavour to elucidate. There was the unity of an unbroken academic tradition guaranteed

by the use of common textbooks, viz. the writings of Aristotle, the *Sentences* of Peter Lombard and others, which had to be read and publicly interpreted by anyone aspiring to academic degrees. Within this unity there was a lively discussion of the various conflicting solutions of the common problems, but, in contrast to the terminological confusion of modern philosophy, this discussion was grounded on the use of a generally accepted common technical language.

The great Scottish philosopher John Duns Scotus (*d.* 1308) is in many respects the connecting link between the thirteenth and the fourteenth centuries. His outlook is deeply rooted in the philosophical movement of the thirteenth century ; he is the builder of one of the most impressive systems of the Middle Ages ; but at the same time his work reveals many characteristics of the period which follows him. Because of his keen logical analysis and his penetrating criticism, his contemporaries called him the *Doctor Subtilis*. Not only did his life and teaching bridge the two classical centuries ; not only did he unite in an unprecedented manner the theological and philosophical tradition of Oxford and of Paris ; he also had the rare gift of awakening a great number of disciples, who at the same time were in varying degrees independent thinkers. No schoolman of the day could afford to ignore his teaching ; everyone was forced to define his position.

A prodigiously varied school, composed mostly, though not exclusively, of members of the Franciscan Order, achieved the firm entrenchment of Scotus's doctrine in scholasticism for centuries to come. It was natural that the followers of the older scholastics, in particular of St Thomas, should strongly oppose the innovations of Duns Scotus and his criticism of their own position. But these were not his only critics ; some of those who readily acknowledged their great indebtedness to him nevertheless felt free to go their own way. Two of these inde-

pendent-minded followers are known as the originators of conceptualism, viz. the saintly French Franciscan, Archbishop Peter Aureoli (*d.* 1321 or 1322), and the English Franciscan, William Ockham.

Aureoli and Ockham have many doctrines in common ; both were in immediate contact with Scotus's work, and perhaps both heard the lectures of the Subtle Doctor, whom, in any case, both deeply admired. But their admiration is that of independent thinkers who are constantly criticising and sifting the teachings of Scotus. Both reject the realistic interpretation of universal concepts and the connected doctrine of 'formal' distinctions so characteristic of Scotus's teachings, and both went far beyond the work of the great Master.

Though we must not underrate the importance of Aureoli for medieval thought or deny the possibility of his having influenced Ockham, it nevertheless seems justifiable to consider Ockham as the central figure of a new movement, known as the school of the nominalists, the *schola* or *via nominalium*. This school grew to such importance that every historian of fourteenth-century scholasticism is forced either to go back to, or to start with, the *Doctor plusquam subtilis*, the *Venerabilis Inceptor*, William Ockham.

II. OCKHAM'S LIFE

Documentary evidence about the life of Ockham is scanty. For most of the events of his life we have only more or less probable conjectures. It is not our task to substantiate these conjectures here, since we have done so elsewhere.[1]

William Ockham was probably born at Ockham, in the county of Surrey near London, perhaps closer to

[1] *Cf. The Tractatus De Successivis attributed to William Ockham*, Franciscan Institute Publications No. 1 (N.Y. 1944), pp. 1–15.

1280 than 1290. A document discovered lately by Fr Conrad Walmesly, O.F.M., informs us that he was ordained subdeacon on 26 February 1306.[1] We know nothing definite about his earlier studies or of any of his early life. It is most probable that he pursued his higher studies in theology at Oxford from about 1309 to 1315, lectured on the Bible from about 1315 to 1317, lectured on the *Sentences* from about 1317 to 1319, and was a *Baccalaureus Formatus* from about 1319 to 1323. It seems that Ockham was a *Magister Theologiae*—that is to say, he had fulfilled all the requirements necessary for that degree—but he never became a *Magister actu regens*, a Master occupying an official chair of theology ; that is the reason why he was called *Inceptor*, and that is the meaning of this title so often misinterpreted in the sense of 'originator of the nominalistic school'.

Why did Ockham remain an *Inceptor*? The most likely reason is that he was prevented from holding a chair by Lutterell, former Chancellor of Oxford University. Lutterell, an overzealous Thomist, was apparently in opposition to the majority of the University. At the request of the University itself he was deposed by the Bishop of Lincoln, Henry Butwolsh.[2]

Whether or not Ockham's teaching was already the subject of this dispute, we do not know. However, it is certain that after his deposition Lutterell made Ockham his victim. Lutterell was no longer Chancellor by the middle of the year 1322. For we know that in a letter dated 12 August 1322, Edward II forbade Lutterell to leave England for the Continent and warned him not to jeopardise the reputation of the University by taking a domestic affair to other places. However, in another

[1] *Cf. Guillelmi de Ockham Opera politica*, accuravit J. G. Sikes (Manchester 1940), p. 288.

[2] *Cf.* Fritz Hoffmann, *Die erste Kritik des Ockhamismus durch den Oxforder Kanzler Johannes Lutterell (nach der Hs.* CCV *der Bibliothek des Prager Metropolitankapitels)*, in Breslauer Studien zur historischen Theologie, Neue Folge Band IX (Breslau 1941), pp. 1 sqq.

letter, dated 20 August 1323, the King gave permission for Lutterell to go to Avignon, the residence of Pope John XXII. His permission (we would say 'passport') was given for two years. From a letter written to the King in 1325 by the Pope, requesting an extension of this permission, we know that one reason, even if not the only one, why Lutterell had gone to Avignon was to accuse Ockham of expounding heretical doctrines.

We have, too, several of Lutterell's own documents presented to Pope John XXII in order to justify the accusation that Ockham taught dangerous doctrines.[1] These documents certainly do not constitute a faithful account of Ockham's teachings. However, they caused Ockham to be summoned to Avignon by the Pope. Thus Ockham went to Avignon, probably early in 1324. Most likely in the same year, the Pope appointed a commission to examine Ockham's teachings in his *Commentary on the Sentences* (BKS I–IV). The trial dragged on for three years. Two acts had been drawn up by 1326, both based upon fifty-six articles of accusation composed by Lutterell. However, the inquiry was never finished, and none of the doctrines censured by the commission were ever formally condemned.

During the years 1324 to 1328 Ockham may have stayed at the Franciscan Convent in Avignon. We have no record, nor are there any contemporary insinuations that the English friar suffered imprisonment. On the contrary, it is extremely probable that he was free to go anywhere, except to leave the town. It was in the third year of his stay at Avignon that he became involved in the debate over Franciscan poverty. Up to that time he had taken no active part in this hotly disputed question which, in its purely theoretical aspect, concerned the statement that Christ and his Apostles did not possess property whether privately or in common, in its practical aspect, the ideal of poverty cherished by some

[1] *Cf.*, for further literature and documentation, *op. cit.*, pp. 6 sqq.

of the friars and loathed by others. The Order was divided into two parties. Together with the General of the Order, Michael of Cesena, a large majority took up a radical stand against the decision of the Pope. Called to Avignon, Michael openly resisted the Pope in an audience. He was detained in Avignon. During his stay in Avignon, and probably soon after his arrival, Michael ordered Ockham to study the question.

As Ockham tells us,[1] it was only then that he became interested in the whole problem, and that he discovered that the Constitutions of Pope John XXII were in contradiction with statements of earlier Popes. Passionately he took sides with his superior against the Pope. This decision, however, was much more far-reaching than Ockham may have realised at this time ; for the German Emperor, Louis the Bavarian, seized the opportunity of the debate over poverty to further his own political purposes. This unfortunate mixture of political and theological struggles plunged the Order into the greatest crisis of its existence, and drove Ockham finally into the camp of the Pope's enemies.

The year 1328 can be considered as the crucial turning-point in Ockham's life. Convoking a General Chapter of the Order, the Pope commanded it to elect another General. Probably it was to counter this move that Michael decided to leave Avignon secretly. United with him in this enterprise were three loyal friars, one of whom was William Ockham. They left Avignon on 26 May 1328 and fled to the German Emperor, Louis of Bavaria. Ockham and his companions met the Emperor in Pisa on his return from Rome, where he had just installed an Anti-pope and received from him the crown of the Roman Empire. The rebellious friars followed the Emperor to Munich, which then became the centre of the intellectual struggle against Pope

[1] *Cf.* L. Baudry, 'La Lettre de Guillaume d'Occam au chapitre d'Assise,' in *Revue d'histoire franciscaine* III (1926), p. 202.

John XXII. Though there is no historical evidence that Ockham at his first meeting with the Emperor said 'O Emperor, defend me with your sword, and I will defend you with my pen', this famous dictum nevertheless expresses a fact. For Ockham became one of the intellectual leaders in the struggle of the Emperor against the Popes.

The fugitive Franciscans at Munich were excommunicated by the Pope and by their own Order ; but the seal of the Order was still in their keeping, and when, in 1342, Michael died, Ockham took possession of it. It appears that Ockham never left Munich, where he was occupied in writing his works concerning the question of poverty, and (in his later period) concerning the relation between state and church.

After the death of Louis of Bavaria in 1347, Ockham's situation became hopeless. There is good evidence that he sought a reconciliation with the Pope and his Order. We know that he sent back the seal of the Order, and we also know the wording of his submission : 'I confess that I hold and held what the holy mother, the Roman Church, believes, holds and teaches ; and that I believed and even now believe that the Emperor has no authority to depose the Pope, the highest Pontiff, and to elect and create another. On the contrary, I consider it heretical, and condemned, as such, by the same Church. Furthermore I swear that I will await and obey the orders of the Church and of our lord the Pope. . . . (I swear too) that in future I will be . . . faithful to the Pope and that I will not adhere to the heresies, the errors, the opinions and the rebellions of Louis of Bavaria and Michael of Cesena against the Church. . . .' [1]

It is worth while to note that this formula of submission speaks principally about certain political errors concerning the relation between the Pope and the Emperor, and of Ockham's disobedience, and further that it does

[1] *Bullarium Franciscanum*, TOM. IV, n. 508*a*.

not mention any errors of Ockham in his teachings on theology and philosophy during his first period in Oxford. Thus ended the career of one who was a brilliant philosopher, a great theologian, and too modern a politician. Ockham died soon after the formula of submission was drawn up. Whether he signed it or not, we do not know. It seems that he died *c.* 1349 (or 1347?), probably a victim of the Black Death.[1] Ockham was buried in the old Franciscan Church in Munich. His tomb, in the choir before the altar, was removed in 1802 and his remains brought to a place still unknown.

III. OCKHAM'S PHILOSOPHY [2]

Before drawing the broad outlines of Ockham's philosophy, we must remind the reader that Ockham never expounded it systematically and in its entirety. The *Cursus philosophicus* in several ponderous tomes is a characteristic product of sixteenth- and seventeenth-century scholasticism, but no scholastic philosopher of the thirteenth or the fourteenth century has handed down to us anything like that. The scholastics of the thirteenth and fourteenth centuries were theologians essentially, philosophers only incidentally. Their reasoning was a concentrated effort to penetrate the mysteries of the Christian faith ; their philosophy was the handmaid of theology. None the less, it is a striking historical fact that these great theologians were equally great as philosophers. Being theologians, they did not care to start by developing a complete philosophy. Rather they developed their theology and philosophy in organic integration, so that theology was constantly fertilised by philosophic speculation and philosophy remained under

[1] *Cf.* Rudolf Höhn, O.F.M., 'Wilhelm Ockham in München', in *Franziskanische Studien*, XXXII (1950), 142 sqq.

[2] A complete list of Ockham's writings is given in the Bibliographical Note below, pp. lii–lix.

the guidance of Christian dogma. It was due to this organic unity of medieval speculation that little need was felt for composing a complete philosophical *Summa*. It is in the theological writings that the best scholastic philosophy is hidden, and it is the task of the historian to extract it from its theological context.

This will be our task, also, when giving an outline of Ockham's philosophy. Some of our texts, in fact a considerable number, have been taken from writings devoted to purely philosophical subjects, many from the *Summa logicae*, some from his writings on the *Physics* of Aristotle. But this has been done for practical purposes, because in these later writings Ockham usually presents his thoughts in a more systematic and precise manner. Nevertheless, his epistemology, psychology, ethics and a large part of his metaphysics have to be reconstructed from fragments scattered throughout his theological works. To present these separate pieces as a part of an ordered system inevitably produces a somewhat artificial synthesis ; but we hope that our reconstruction will not be too far removed from what may properly be called the philosophy of William Ockham.

1. *The leading ideas of Ockham's philosophy*

In order to achieve a general understanding of Ockham's work we have to view him as a theologian, who at the same time was a great logician, a keen observer of facts and a man endowed with a sharp critical sense.

Ockham is first and foremost a theologian who by entering the Order of Friars Minor devoted his whole life, and especially his intellectual activity, to the service of God. Hence he is a religious thinker ; for him, there can be only one absolute in this world, one thing which alone is necessary, only one reality which is completely self-sufficient, namely God, the supreme author alike of creation and of revelation. In this world, it is God

who ultimately matters. God—the living, the wise, the loving, the just, the all-powerful—God alone is absolutely independent ; and by *God* Ockham means a God of absolute unity and simplicity, and at the same time a God threefold in His personality. With due humility the theologian as such submits and bows to this God of his in an act of uncompromising faith. God's revelation, whether as deposited in holy scripture or as embodied in the living tradition of the Church, is accepted by Ockham as the rule of faith. This rule is throughout the guiding principle of his investigations. Once at least he has expressed it in the following words : 'This is my faith, since it is the Catholic faith. For whatever the Roman Church explicitly believes, this alone, and nothing else, I explicitly or implicitly believe'.[1]

However, Ockham is also a logician, perhaps the greatest logician of the Middle Ages. Reason is something sacred, a gift from God ; hence the laws of reason are to be respected. Passionately, Ockham denounces any encroachment on the duty to follow one's own reasoning, except, of course, the intervention of that higher authority which is the source from which reason itself flows : 'I consider it to be dangerous and temerarious to force anyone to fetter his mind and to believe something which his reason dictates to him to be false, unless it can be drawn from holy scripture or from a determination of the Roman Church or from the words of approved doctors'.[2]

While Ockham apparently enjoys the display of logic, we look in vain for lofty speculations. Wherever possible, he tries to get a solid footing on experience and observation. We have to find out how things are, we have no right to dictate how things must be. Ockham's philosophy is empirical, but he is no empiricist. He is an

[1] *De sacramento altaris*, cap. 1 ; ed. Birch, p. 164, 3–5.
[2] *De corpore Christi* (*De sacramento altaris* in the ed. of Birch), ed. Birch, p. 126, 18–23.

empirical thinker, because he is a Christian firmly believing in the contingency of this created world of ours.

Since God is the only absolute and necessary being, knowledge about created beings requires that we should examine them and investigate what they actually are ; for, so far as God is concerned, they might be different. Ockham never loses sight of this basic Christian idea—so radically opposed to the necessitarian view—that there is no *inherent* necessity for anything in this world to be what it is. Even in his investigation of the problems of physics or psychology Ockham never forgets that this world is absolutely dependent on the will of God ; always he takes the stand of a Christian, who firmly believes in the omnipotence of God and the contingency of creatures.

Thus the following maxims are the guiding principles of all Ockham's work :

1. *All things are possible for God, save such as involve a contradiction.*

In other words, God can do (or make or create) everything which does not involve a contradiction ; that which includes a contradiction is absolute non-entity. Ockham expressly bases this principle on an article of faith : 'I believe in God the Father Almighty'.[1] From this Ockham immediately infers a second principle which is encountered everywhere in his writings :

2. *Whatever God produces by means of secondary (i.e. created) causes, God can produce and conserve immediately and without their aid.*[2]

Hence any positive reality which is naturally produced by another created being (not of course without the aid of God who is the first cause) can be produced by God alone without the causality of the secondary cause. In

[1] *Cf. Quodlibeta* VI, qu. 6, of the Strasbourg edition.
[2] *Ibid.*

other words, God is not dependent on the causality of created causes, but they are absolutely dependent on His causality.

This is stated in a more general manner :

3. *God can cause, produce and conserve every reality, be it a substance or an accident, apart from any other reality.*[1]

Hence God can create or produce or conserve an accident without its substance, matter without form, and *vice versa*. In order to bring anything under the operation of this principle, it is sufficient to prove that it is reality or entity.

These rules or guiding principles are theological in nature, as Ockham does not fail to emphasise. The following is, however, a scientific principle of general application :

4. *We are not allowed to affirm a statement to be true or to maintain that a certain thing exists, unless we are forced to do so either by its self-evidence or by revelation or by experience or by a logical deduction from either a revealed truth or a proposition verified by observation.*

That this is the real meaning of ' Ockham's razor' can be gathered from various texts in Ockham's writings.[2]

[1] *Cf. Reportatio* II, qu. 19F.

[2] *Cf. De sacramento altaris*, cap. 28 ; ed. Birch, p. 318. In *Ordinatio* d. 30, qu. 1E, we read : 'Nothing must be affirmed without a reason being assigned for it, except it be something known by itself, known by experience, or it be something proved by the authority of holy scripture'. *Reportatio* II, qu. 150 has the following wording : 'We must not affirm that something is necessarily required for the explanation of an effect, if we are not led to this by a reason proceeding either from a truth known by itself or from an experience that is certain'. It should be noted that various formulations of ' Ockham's razor' are already found before Ockham, for instance in Duns Scotus. The oldest scholastic thinker, so far as we know, who formulated it, gives this version : '*Frustra fit per plura quod potest fieri per unum*' ; Odo Rigaldus, *Commentarium super Sententias*, MS. Bruges 208, fol. 150*a*.

It is quite often stated by Ockham in the form : 'Plurality is not to be posited without necessity' (*Pluralitas non est ponenda sine necessitate*), and also, though seldom : 'What can be explained by the assumption of fewer things is vainly explained by the assumption of more things' (*Frustra fit per plura quod potest fieri per pauciora*). The form usually given, 'Entities must not be multiplied without necessity' (*Entia non sunt multiplicanda sine necessitate*), does not seem to have been used by Ockham. What Ockham demands in his maxim is that everyone who makes a statement must have a sufficient reason for its truth, 'sufficient reason' being defined as either the observation of a fact, or an immediate logical insight, or divine revelation, or a deduction from these. This principle of 'sufficient reason' is epistemological or methodological, certainly not an ontological axiom.

The scholastics distinguished clearly between a *sufficient* reason or cause (usually expressed by the verb *sufficit*) and a *necessary* reason or cause (usually expressed by *requiritur*). As a Christian theologian Ockham could not forget that contingent facts do not ultimately have a sufficient reason or cause of their being, inasmuch as God does not act of necessity but freely ; but our theological and philosophical, and in general all our scientific, assertions ought to have a sufficient reason, that is a reason from the affirmation of which the given assertion follows. All created things can be explained ultimately only by a necessary reason, i.e. a cause which is required to account for their existence. For every creature is contingent. The guiding idea of Duns Scotus, to safeguard contingency (*servare contingentiam*), is present everywhere in the work of Ockham. We can formulate it as follows :

5. *Everything that is real, and different from God, is contingent to the core of its being.*

If we bear in mind these guiding principles of Ockham, then his philosophical work becomes intelligible as the effort of a theologian who is looking for absolute truth in this contingent world, viz. for truth independent of any of those thoroughly contingent worlds which are equally possible. He is a theologian who views the world from the standpoint of the absolute. Consequently he sees many truths which were called 'eternal' dwindling away in the light of eternity, which is God Himself. The actual order of creatures remains contingent ; the possible order of creatures is above contingency. Hence the tendency of Ockham to go beyond the investigation of the actual order, by asking what is possible regardless of the state of the present universe. What is absolutely possible can never be impossible ; and in that sense statements about absolute possibility are always true and free from contradiction, and for that reason are necessary. Thus the work of Ockham also becomes intelligible—and this is only the converse of the former viewpoint—as the effort of a philosopher who is constantly reminded by the theologian in himself that he must not call any truth necessary unless it can be shown that its denial implies a contradiction.

Such a theologian, and such a philosopher, stands in need of a refined and powerful logic, since he is always looking beyond facts and the actualities towards absolute being and absolute possibility. Ockham was, therefore, bound to be more interested in logic than any of his predecessors. This being so, we must acquaint ourselves as closely as possible with Ockham's highly developed logic, and it is for this reason that so much of our text consists of passages from his writings on logic.

It will now be our task to present a rounded picture of Ockham's philosophy as reflected by the texts in this volume. We shall do it according to a certain system, but we wish to repeat that Ockham himself never presented a system of philosophy.

2. *Epistemology*

Right at the beginning of our exposition we are faced with difficulties of terminology. The highly technical language of Ockham does not always allow of a simple rendering into English. Such is the case with the term '*scientia*', which may assume various shades of meaning, ranging from the unqualified knowledge of a truth to scientific knowledge in the strict sense ; and again, it might mean groups of such pieces of knowledge (for instance a demonstration), or a system of such pieces of knowledge, e.g. the science of logic or of physics. Here we shall merely describe one very important meaning.

Scientific knowledge in the strict sense. Ockham's ideal of scientific knowledge is extremely high. He knows that any cognition of a truth may be found in the various sciences ; however, his ideal of a strictly scientific knowledge is the same as that developed by Aristotle in the *Posterior Analytics*. According to Aristotle those propositions only are scientifically known which are obtained by a syllogistic process from evident propositions which are necessary, i.e. always true and never false. Hence Ockham will admit that there is scientific knowledge in this strict sense only when we know a proposition which remains true regardless of our existing world. All the truths of logic and of mathematics, and some statements about God, and many metaphysical propositions, conform to the definition of scientific knowledge given above, for they are necessary conclusions obtained from necessary

and evident premises. But no statement of actual fact about this world is in this sense truly a scientific statement. However, modal or conditional propositions about our world may have the necessity required by the definition of scientific knowledge. It is understood that a revealed truth which cannot be known by natural reason fails to satisfy the definition, since it lacks the required self-evidence. When reading Ockham, we must always keep it in mind that scientific knowledge in the strict sense is the result of a demonstration ; Ockham admits that we can have evidence for, and convincingly prove, many statements, but they are scientifically or demonstratively known only if they fulfil the requirements of the above definition.

Intuitive and abstractive cognition. The field of scientific knowledge is limited. But many statements outside this field are true and evident and even necessary, and therefore known with certainty. How do we arrive at them? The answer to this question is of ultimate importance. Our cognition starts with the apprehension not of necessary but of contingent facts. No knowledge of any kind is possible without a direct or indirect contact with some object that is experienced. Since it is generally admitted that in the real order only individuals exist, the realities primarily known to us must be individuals or singular facts, whether these be objects of sense or of intellect, whether outside or within the mind. This first, immediate cognition is called by Ockham, following Duns Scotus, *intuitive cognition.* It is the basis for a self-evident existential statement, viz. that the thing which is experienced exists, is present, has such and such a condition, etc. It is to be noted that the existential judgment is an operation of the intellect alone, and that the intuitive cognition which is at the basis of it, even if it concerns an object of sense, is an *intellectual* intuitive cognition or a primary *intellectual* awareness of an object. The intellect could not have an intuitive cognition of a

sensible object without the help of sensory cognition, at least in the natural order ; but the intellectual awareness relates to the sense-object as immediately as the sensory cognition does.

Now there is another sort of cognition of an object in which we are not aware of its actuality ; it is knowledge simply and solely of the object and therefore abstracts from its existence or non-existence. For instance, a few minutes ago I saw a cloud ; I had an intuitive cognition of this cloud, and on the basis of this cognition I gave my assent to the evident judgment 'There is a cloud'. I do not now see this cloud any more, but I think of it, I have it in my mind ; this latter knowledge or cognition cannot be the ground for assent to the evident existential judgment 'This cloud exists', for it does not imply the actual existence of this cloud at this time. It abstracts, therefore, from the existence or non-existence of the object and for that reason is called an *abstractive cognition* ; it need not be abstract in the sense of 'universal'. Both cognitions are caused by the object and the intellect. They are the result of a causality in which the object and the intellect co-operate to produce an act of intellection or cognition. Hence both intuitive and abstractive cognition represent real objects outside or inside the mind. Ockham, therefore, is a realist in his epistemology.

Intuitive cognition of non-existents. Ockham thus holds that intuitive cognition must be caused by two part-causes. There is no doubt that there cannot be an intuitive cognition without the knowing subject ; is it possible that there can be an intuitive cognition if the object itself or its causality is lacking ? It would seem that if the only part-cause present is the intellect, this is impossible ; and Ockham does not deny this. However, Ockham as a Christian theologian believes in the omnipotence of God ; one of the guiding principles of his work is that everything that can be produced by a

secondary cause can also be produced by the first cause, God. No object, therefore, is necessary, because God can supply the causality of the one secondary partial cause, viz. the object, and co-operate with the other part-cause, the intellect, to produce an intuitive cognition. This He can do, even if the object so known is far away or is for other reasons inaccessible to a direct contact with the intellect. Thus far we are dealing with an object that really exists but is intuitively known and judged to exist only by supernatural aid. But is intuitive cognition also possible, if there is no object?

Ockham's complete definition of intuitive cognition is that it makes possible an evident judgment that a thing exists (or is present etc.) if it exists, or that a thing does not exist if it does not exist. By definition, therefore, intuitive cognition has reference to the existent order. Hence when it is said that one can intuitively know an object which does not exist, it must immediately be stipulated that the object—though not existing in fact—must be an object that might exist. Pure nothingness (i.e. what involves a contradiction, or an impossibility) cannot be known intuitively.

At first sight this may seem surprising. Is it not indeed a contradiction to say that we can have an intuitive cognition of something which does not exist? Ockham does not think so, because as a Christian theologian he knows that God Himself has immediate and non-inferential cognition of everything, whether it exists or not. God knows immediately—and that is to say intuitively—not only all that exists, but also all that could exist, but does not. If such a cognition is possible to God, we must allow that it is possible absolutely speaking; therefore it cannot involve a contradiction. And, according to Ockham's other guiding principle, that which does not involve a contradiction can be realised by God. As a Christian theologian, Ockham maintains that an intuitive cognition of non-existent things is

possible with the supernatural help of God; as a philosopher, he maintains also that even in this case the statement 'This thing does not exist' is evident—because intuitive cognition is the basis of an evident and hence absolutely true statement that a thing exists or does not exist, as the case may be. Ockham never doubted the infallibility of evident knowledge.

Abstract universal cognition. Though an intuitive cognition could itself be called a concept, usually the term 'concept' is reserved for that abstractive cognition which results from comparing together several abstractive cognitions of singulars. By this process of comparison a more general abstractive cognition is formed: a *universal* concept, predicable of many singulars. What does the universal concept represent?

Ockham refuses to admit that in the real world there is anything that corresponds to the universality of a concept; in other words, he does not admit any universal *in re*, common nature, etc.—anything which is not completely individual. It is by no means self-evident, says Ockham, that in its own right the nature or essence of a thing is not individual. Almost all his predecessors had maintained that natures and essences considered in themselves had some kind of generality or commonness; in order to become numerical units or individuals or singulars, natures had to be individualised by a principle of individuation. Ockham's predecessors had thus approached this problem from the side of the universal; Ockham attacked it from the side of the individual; a change of outlook almost as epoch-making as the Copernican revolution in astronomy.

Here it is instructive to take a quick glance in passing at the teaching of Duns Scotus. He still held that concerning universals two questions may properly be asked: (1) How can a nature or essence which by itself is not singular become singular? (2) How is it that the same nature or essence becomes a universal concept in the

mind? The first question Scotus answers by his theory of individuation. Ockham, however, considers this question a pseudo-problem. To him it is self-evident that everything that exists is individual and singular, so that it does not need to be individualised or singularised. We do not need an explanation for the fact that something is an individual—though of course we need an explanation for the facts that it exists and that it has such or such a nature. Thus Ockham reduces the questions that can properly be asked concerning commonness and individuality to one question, viz. 'What is it that makes a concept a *universal* concept?' or 'How, by means of universal concepts, can I know individual natures?'

As already stated, Ockham's answer is that a concept, for instance the concept 'man', arises out of the combination of an intuitive with an abstractive cognition. The abstractive cognition alone survives and is stored in the memory as habitual knowledge; it is generalised by way of comparison with other similar abstractive cognitions to represent, not just one, but many similar individuals. Because of its origin, and because of the similarity between the individuals, it is common to all individuals of the same kind, in the sense that it is predicable of them. Universality, therefore, is simply a manner in which a sufficiently generalised abstractive cognition is predicable, and thus it exists wholly within the mind. On the side of the individuals that are known, there exists only individuality and the similarity of individual natures.

The nature of the universal concept. In answer to the question stated above, Ockham did not hesitate between various possibilities. But there is a further question. What is the nature of a universal concept considered in itself; what kind of being does a universal concept have in the mind? At different periods Ockham gave different answers to this question. Originally he had believed that the universal concept (for instance 'man' or 'animal'

in the mental proposition 'Man is an animal') is something different from the act of thinking it, (that is, the intellection), and that the concept has no reality but only a logical being, as an object of the act of thinking (or, in medieval language, that it has no *esse subiectivum* but does have *esse obiectivum*). As a mere thought-object it has neither a spiritual, or psychic, nor a material reality ; it is something mentally imaged, and for that reason Ockham calls it a *fictum*. A *fictum*, however, is not a *figmentum*, or a fiction in the modern sense ; the latter being defined as something that is quite impossible, or purely fictitious. This logical picture or *fictum* is considered to be a true representation of the object in connexion with which it was first constituted in its proper being by the process of intuitive and abstractive cognition.

This theory was held not only by Ockham in his earlier period, but also by his contemporary Aureoli. Ockham and Aureoli seemed to have arrived at it independently of one another ; but it appears that when Ockham became acquainted with Aureoli's *Commentary on the Sentences* he gradually gave up his *fictum* theory in favour of another. This other theory we shall call the 'intellection theory'. According to this, the concept or universal involved in a cognition is identical with the very act of abstractive cognition, hence it is a psychical entity ; this act of cognition, immediately caused by the object known and the intellect working together as two part-causes, represents the object, and as such can function as predicate in a mental proposition.

All the evidence suggests that Ockham finally held only the intellection theory and, in his later years, completely abandoned the *fictum* theory.

3. *Logic*

Once it becomes capable of conceptual and universal knowledge, the mind can proceed to develop the various sciences. Physics, mathematics, metaphysics and all the other sciences need universal notions as material. Logic, however, teaches us how to arrange these notions to form propositions and arguments in order to obtain truth and an organised body of truths, i.e. a science. Since a practical science teaches us how to do certain things in the right manner, logic is a practical science ; it is a tool of scientific work. It was especially in this field that Ockham made himself a great master.

Ockham divided the subject into three parts : the logic of terms, of propositions and of reasoning. This division has become classical and has its root, not so much in the nature of logic as such, as in those writings of Aristotle called the *Organon*. It is important to note that Ockham's logic (like all medieval logic) deals mainly with spoken sentences, a fact that is often overlooked. But this did not prevent Ockham from clearly distinguishing between mental, spoken and written sentences, and their elements.

Some divisions of terms. The elements of propositions are called *terms*. Terms function as signs, since they call or represent objects to our mind ; in a word, they *signify*. Nouns, for instance, are terms ; they are instituted by man in order to be names of objects and (in their significative capacity) to act in discourse as substitute for the things themselves. Language is thus, in Ockham's view, a system of artificial signs. Prior to these artificial signs are the natural signs, our concepts, which are not dependent on, or caused by, man's activity in instituting languages ; they are products of nature, caused simply by the interaction of object and intellect as two part-causes. Now, according to Ockham, the artificial signs, our spoken words, are dependent on the

natural signs of our mental language. An artificial sign is associated with a concept ; the word, however, the artificial sign, does not signify the corresponding concept ; properly speaking, the word and the concept both directly signify the same object ; the only difference is that the word does so only in subordination to the concept.

Categorematic and syncategorematic terms. In any proposition we can distinguish formal and material elements. For instance, in the proposition 'Every man is not white', the material elements are 'man' and 'white' ; the formal elements 'every' and 'is not'. The latter constitute the *form* of a proposition, and are *syncategorematic* terms; the former are called *categorematic* terms. Examples of syncategorematic terms are 'every', 'is', 'not', 'or', 'and', 'if—then', etc. ; modern logicians would call them constants. Ockham would say that categorematic terms signify definite objects, whether naturally or by convention, so that we can point at a definite object and predicate the term of it. 'Man' is thus a categorematic term, for we can point at a definite object and say 'This is a man'. Syncategorematic terms, on the other hand, do not signify a definite object or objects. They do have meaning, of course, but they have no signification when taken by themselves. Thus, if we take 'every' in its proper meaning, it is simply nonsense to say 'This is every'. Syncategorematic terms thus have a *contextual* meaning ; they signify only in conjunction with categorematic terms. It is these formal elements or syncategorematic terms which enable us to make inferences, and for that reason they are the main subject of logic.

Absolute and connotative terms. As regards categorematic terms, Ockham explains several distinctions ; the most fundamental appears to be the division into absolute and connotative terms. An *absolute* term signifies its object directly and without at the same time signifying something else indirectly or secondarily ; in other words, an absolute term is one that calls an object to mind, and

only that object. Correspondingly, a *connotative* term is one which calls to mind not only the object it signifies directly, but also something else which it signifies indirectly. For instance, the term 'white' is a connotative term. Directly, it signifies the *thing* that is white, or, to use the medieval terms, the *subject* that has whiteness ; but along with this object it also brings to mind, and signifies indirectly or connotes, another object, *whiteness*. The term 'white' does not directly and primarily signify the whiteness of a thing. For if that were true, then the proposition 'This [pointing at the quality whiteness] is white' could be true. But whiteness is not white ; rather it is a white thing that is white, or *has* whiteness. 'Whiteness' on the other hand is an absolute term. We can point at a certain colour and say 'This is whiteness'. In this case, the real quality of whiteness is signified, and there is nothing else 'connoted'. Similar absolute terms are 'man', 'horse', 'stone', 'intellection', etc. Thus it appears that absolute terms are fundamental ; they are the result of an immediate intellectual contact with objects and of acts of abstraction based on this. Connotative terms, on the other hand, result from a combination of concepts, and are hence always composite terms. Whilst absolute terms are susceptible of a real definition (*definitio quid rei*) or of a definition answering the question 'What is this thing ?', connotative terms are susceptible only of a nominal definition (*definitio quid nominis*), answering the question 'What is meant by this term ?' The nominal definition simply indicates the elements which enter into the composition of a term.

The importance of this distinction can be seen if we point out that according to Ockham the terms 'quantity' and 'quantum' are synonymous and both are connotative. For in his view a quantity is in reality identical with the body, the colour, etc. that 'has' quantity. Hence quantity directly signifies a body or colour, but connotes that these subjects have parts distant from other parts.

For that reason it can be truly said 'This table is quantity' or 'This table is quantitative' (which is the old sense of *quantum*). Both propositions mean 'This table is something that has parts distant from each other'.

Terms of first and second imposition and intention. Ockham further makes use of a distinction between terms of first and second imposition and intention. By 'imposition' is meant the act of imposing a name on an object, or of assigning to a word the task of signifying; 'intention' means concept or mental term. By 'first' and 'second', as used in this connexion, it is shown that conceptual or mental language, and again spoken or written language, consists of several levels. For we can *use* terms (first level) or we can *speak about* terms (second level). Let us first consider spoken or written language. On certain words we have *imposed* the function of signifying. Those words which do not signify parts or qualifications of our spoken or written language as such are called *words of first imposition.* On the other hand, those words which signify parts or qualifications of our spoken or written language are called *words of second imposition.* Thus words like 'substantive', 'adjective', 'declension', 'conjugation', 'nominative case', etc., are words of second imposition, in which the grammarian is interested. Words like 'man', 'stone', 'white', 'intention', 'universal', 'species', etc., are words of first imposition. Hence words of second imposition always signify words of first imposition.

The distinction between first and second intentions concerns only concepts or mental terms, which, as we said, are natural signs of their objects. First intentions signify objects which are not 'intentions' or concepts; second intentions signify first intentions. Concepts like 'man', 'stone', 'white', etc. are *concepts of first intention*; concepts like 'universal', 'species', etc., are *concepts of second intention.* Second intentions are predicated of first intentions, but not *vice versa.*

Several distinct spheres or levels in the universe of discourse are reviewed by the logician. First, there is the level of objects which are not signs. Second, there is the level of those signs which signify first-level objects. Third, there is the level of those signs which signify the signs of the second level. This refers to the conceptual order. Concerning the order of spoken or written terms, there is first the level of anything that is not a spoken or written word ; practically, therefore, everything contained in the three levels mentioned above. Secondly, there is the level of those spoken or written words which signify the first-level objects ; these are first impositions. Thirdly, there is the level of those spoken or written words which signify the words of the second level ; these are words of second imposition.

Suppositio. The theory of *suppositio*, closely related to the distinctions just mentioned, is everywhere present in Ockham's philosophical and theological work. Though introduced by earlier logicians, the theory was refined and simplified by Ockham. After him it became quite common among all the scholastics.

The meaning of the term '*suppositio*' is intimately connected with that of the term 'signification'. Every categorematic term has signification, by its very nature if it is a concept, or by convention if it is a spoken or written word ; but when used in a proposition it does not always exercise its significative function. In the theory of *suppositio*, a term is said to have 'personal' *suppositio* when it is used to signify that of which it is (naturally or conventionally) a sign ; for in that case it acts for or 'impersonates' the object signified. However, terms themselves can become the subject of discourse, in which case they do not exercise a significative function in a proposition. Now, if a term which has become a subject of discourse is a concept and simply represents itself or is taken as such, then this term has 'simple' *suppositio*. For instance, in the proposition 'Man is a

species', it is being said that the *concept* 'man' is a species. Hence what is represented here by 'the concept "man",' or by the word associated with it, is not a *man* in reality, but simply the concept itself. If a term which has become the subject of discourse is a spoken or written word, then we have 'material' *suppositio*, as for instance when we say: '"Man" has three letters'. For it is being stated that the *word* 'man' has three letters, but not that *man*, i.e. a rational animal, has three letters.

This distinction is very important. A case in point is the problem whether a real science, as for instance physics, deals with physical objects of the outside world or with propositions. Ockham explains that the term 'science' is a second intention, since it is predicated of propositions or of a system of propositions. The propositions themselves, however, are composed, most of them at least, of first intentions.

The theory of *suppositio* performs still another and more important task. It provides the scholastics with a logic of predication. This immediately becomes clear when we turn to the distinctions which Ockham draws between various types of personal *suppositio*. He explains them by indicating the relations of such predicates as 'man' or 'white', etc., to their subjects, or, more precisely, to the individuals signified by the subjects. Ockham considers a kind of atomic sentence, in which individuals are denoted by the demonstrative pronouns 'this' or 'that' or by proper names. The relations between these and other sentences are determined by inferences. To make such an inference from a more general proposition to an atomic proposition was called 'descent', the opposite process 'ascent'. Let us take for instance the so-called 'determinate' *suppositio*. We get this in a particular affirmative proposition such as 'Some man is white'. Its atomic or singularised form is 'This man is white'. The following inference (or, indeed, equivalence) is valid: 'Some man is white, therefore

this man is white, or that man is white, or that man' (and so on for every individual man). Hence Ockham defines determinate *suppositio* as that which allows the descent from a proposition to a disjunction between the singularised propositions derived from it. Again, we have a common, distributive, confused *suppositio*, when a logical descent is possible from a universal proposition to singularised propositions joined by the conjunction 'and', as in this instance : 'Every man is mortal ; therefore this man is mortal and that man is mortal' (and so on for every individual man).

Finally the theory of *suppositio* is used by Ockham to make clear and definite the notion of truth and falsity. Ockham's definition of truth is in line with the Aristotelian view that a proposition is true when that which is said to be is. Ockham indeed is merely stating the same thing as Aristotle, but with greater precision, when he says that a proposition is true when subject and predicate stand for (have *suppositio* for) the same thing. For instance, the proposition 'Socrates is white' is true if there really is one individual signified by the term 'Socrates' and also by the term 'white'. Neither the terms nor the notions associated with them are identical, but both subject and predicate of the proposition stand for the same object, which is signified by them. The proposition would be false if the individual signified by 'white' were not Socrates or if the individual signified by 'Socrates' were not white. The case is slightly more complicated when the subject has material or simple *suppositio*. In material and simple *suppositio* a term has no significative function, but simply stands for itself. For instance, ' "Man" is a word' is true, if there really is a word 'man' which the term 'word' stands for and signifies.

Consequentiae. Medieval logic did not regard the syllogism as the only form of inference. On the contrary, medieval logicians worked out a much more

general theory in which the syllogism appears only as a special type of inference : the general theory of *consequentiae.* A *consequentia* can be understood as a conditional proposition ; its antecedent and the consequent may be either simple or compound propositions. Ockham made himself a master in this branch of the subject. In fact, he himself collected quite a number of *consequentiae* which are well-known theorems of modern logic. Like most modern logicians, Ockham regarded as fundamental the *consequentiae* holding between unanalysed propositions (theorems of propositional calculus in modern logic).

Ockham's discussion of this subject is by no means as easy to follow as it would be if stated in modern logical symbolism. That Ockham, without the advantage of modern notation, was able to penetrate so deeply into these fundamental problems of logic, is a striking testimony to the power and clarity of his intellect. His *consequentiae* are not proved in any of the ways used in modern logic, though we do encounter attempts of this kind among the later scholastics ; they were formulated, it seems, merely by insight into logical relations.

Ockham certainly knew the so-called De Morgan laws (formulated by De Morgan in 1857). According to them, the contradictory opposite of a conjunctive proposition is equivalent to a disjunctive proposition in which each proposition is denied. In other words, he knew the law :

$$- (p \cdot q) \equiv (- p \vee - q)$$

And also the converse :

$$- (p \vee q) \equiv (- p \cdot - q)$$

Besides this there are many other theorems in the propositional calculus of modern logic which were known to Ockham. For convenience' sake we shall present

many of them here in modern symbolic form (the numbers are those given in the translation). We use the symbol of material implications ($\supset$) without maintaining that Ockham understood these *consequentiae* as material implications. On the contrary, he considered most of them to be strict implications. However, it seems that he had an idea of material implication, as in modern logic ; and in any case every strict implication is valid in material implication, though not vice versa.

(1) $(p \supset q) \supset - (p \,.\, - q)$

And also :

$$(p \,.\, - q) \supset - (p \supset q)$$

And again :

$$[(p \,.\, q) \supset r] \supset - (p \,.\, q \,.\, - r)$$

(2) $$- p \supset (p \supset q)$$

Likewise the destructive form of the conditional syllogism:

$$[(p \supset q) \,.\, - q] \supset - p$$

(3) $$(p \supset q) \supset (- q \supset - p)$$

Applied to a syllogism, as by Ockham, it will take this form :

$$[(p \,.\, q) \supset r] \supset [- r \supset - (p \,.\, q)]$$

or :

$$[(p \,.\, q) \supset r] \supset [(- r \,.\, p) \supset - q)]$$

The following are other syllogistic variations :

(4) $(p \supset q) \supset [(q \supset r) \supset (p \supset r)]$
(5) $(p \supset q) \supset [(r \supset p) \supset (r \supset q)]$
(6) $(p \supset q) \supset [(p \,.\, r) \supset (q \,.\, r)]$
(7) $(p \supset q) \supset [-(q \,.\, r) \supset - (p \,.\, r)]$

(8) This rule cannot be symbolised with ordinary means.

It states that from a proposition which is always true and never false, no proposition which may be either true or false can be inferred. And in rule (9) it is stated that a proposition which is always false (an impossible proposition) cannot be inferred from a proposition which may be either true or false ; since, if the latter proposition were true, falsity would follow from truth ; but that cannot be admitted.

(10) This rule simply states that from a proposition which is always false any proposition may follow. It could be symbolised in the form of the following theorem :

$$(p \,.\, -p) \supset r$$

We may substitute for r whatever we like. Soon after the time of Ockham the startling though formally true example was used : 'You are sitting and you are not sitting, therefore a stick is in the corner'. Ockham expressly states that the examples he gives are not formal *consequentiae* ; since he uses contingent propositions in the antecedent, it seems that he is referring to material implication. If this is true, then he has an idea of this still hotly disputed interpretation of a conditional proposition.

It would lead too far astray to go into further details. Let us only mention that Ockham has already some idea of a many-valued logic. In any case his logic is much richer and much more carefully developed than any modern textbook of neo-scholastic logic would lead us to suspect.

4. *Metaphysics*

It has been said that Ockham's basic ideas in logic and epistemology are opposed to the development of an ontological philosophy, i.e. of one that deals with being or reality in general. In other words, he may have a logic, even an excellent one, but he cannot have a

metaphysics. Ockham himself would have been surprised at this insinuation. The best answer to it is Ockham's own metaphysics, of which we shall now give a general outline.

Metaphysics is a real science, or a science concerned with real things, in the sense explained before. Its main subject is the term 'being', which stands for (*supponit*) beings. There is no 'being as such' in the universe outside the mind ; there are only *beings* (things, individuals —whether accidents or substances) : inanimate bodies, plants, animals, human beings, angels, God ; and every one of these individuals is conceived as *a* 'being' ; so that of every one of them 'being' can be predicated. Thus there is one concept which can be predicated about everything that exists or can exist. The spoken or written term 'being' is univocal. In fact, to deny this univocity of the term 'being', i.e. to maintain that to the term 'being' there does not correspond one and the same concept, predicable about any real thing, would, according to Ockham, entail agnosticism in regard to God. Since we have no immediate or intuitive cognition of God, and consequently no abstractive cognition such as would immediately accompany or follow this ; and since only cognitions of these two sorts are simple and proper cognitions ; the only possibility left open is that we should have a concept of God that is composed of concepts abstracted from creatures. For instance, we can abstract from creatures the notion of 'being' that is predicable of every real thing : we can also abstract from creatures the notion of 'first' that is predicable of everything which is first in any respect. We can then combine both concepts to form the composite concept of 'first being' ; and this is a concept proper to God, but not simple. If the elements of such concepts were not predicable in exactly the same sense of God and creatures there would be no link joining our experience to the unexperienced, transcendent God.

However, and this is of equal importance, this univocity of the term 'being', and of others used in metaphysics, does not imply that any reality is common to God and creatures. In fact, there is no common feature whatever in reality. There is something common only in the conceptual order. There is not even a real similarity between God and creature, neither in their substantial being, nor in accidental being (since God has no accidents). There is, we could say, only a structural similarity that transcends any concrete content of the things conceived as 'beings', somewhat as a melody can be the same, though every note is different when played in a different key. Thus we can grasp in one concept things which are entirely dissimilar in their actual being : for the modes of infinity and finitude establish an infinite dissimilarity. Nevertheless God is a 'non-finite' (i.e. infinite) 'being', and a creature is a 'finite being', and every corresponding term in these expressions is univocal.

As we mentioned already, the term 'being' is the main subject of metaphysics. It is predicated of every individual or thing not as qualifying some other subject or thing, but in its own right. Being, therefore, is predicated in the manner of a 'quiddity', *in quid*. The term 'white' *qualifies* a subject, and therefore the scholastics say that it is predicated in the manner of a quality, or *in quale* ; the term 'whiteness', on the other hand, denotes or signifies a thing, namely the real accident whiteness, and is said to be predicated in the manner of a 'quiddity', *in quid* ; i.e. it tells us *what thing* whiteness is. (Notice that *quid* in scholastic Latin has a much more restricted meaning than 'what' in English). The same is true *a fortiori* for the terms 'man', 'substance'. It is regrettable that this scholastic terminology is often misunderstood. The term '*in-quid* predication' has nothing to do with the recent controversy over essentialism and existentialism; it is concerned only with Aristotelian logic. This should be eminently clear in the case of the *in-quid* predication

of being ; for the term 'being' by its very meaning necessarily has reference to actual existence, since it denotes everything that exists or can exist in the universe. To introduce a distinction between 'being' and 'existing', 'essence' and 'existence', in a real thing is as meaningless for Duns Scotus (who calls it a fiction) as it is for Ockham. For, according to Ockham, the terms 'essence' and 'existence' both signify exactly the same individuals and the same reality. The difference between the terms is only grammatical. And Ockham is very sensitive to any encroachment of grammar on metaphysics.

Hence the terms 'being', 'thing', 'individual', and the abstract terms 'reality', 'essence', 'existence' denote exactly the same things in Ockham's metaphysics. Thus he can maintain that a creature is its own essence, and its own existence, and nevertheless allow for an ultimate difference between the being that is God and the being that is a creature. He draws other distinctions between God and creatures, no less radical than that supposed to hold between a being that is its own act of existence, and one that is not : e.g. that God is from Himself, and a creature is not from itself ; that God is infinite, a creature is finite ; that God is uncaused, a creature is caused, and so on.

Once Ockham's theory of univocity is established, the link is secured between creatures and God, and in consequence between ontology and natural theology, and also between natural theology and revealed theology. It is strange that Ockham should have been accused of having separated theology from philosophy. Really he made their common basis explicit. It is obvious that the Christian theologian would speak a language totally different from that of a pagan philosopher, were there not a common concept, at least of 'being', which they could both use. For, in fact, if there were no common concept, they could not even contradict each other. But it is also clear that we have no concept of God that is

both simple and at the same time proper to God. Not even the theologian has such a concept, for such a simple and proper concept is reserved to one who has an intuitive cognition of God or a special revelation from God.

On the proofs of God's existence. Ockham, therefore, has paved the way for a natural theology. He demonstrates that we *can* know something about God—little though it may be if we demand the utmost certainty. The question thus arises, *what* can we know about God with our unaided natural reason ?

We can know something about God either by way of demonstration (a concept explained earlier), or by way of a persuasive (probable or dialectical) argument. The latter argument does not proceed from evident premises ; but its premises are accepted by all, or at least by all acute and trained, minds. The conclusion may be *certain*, but it is not *evident*. Evidentness and certitude are by no means equivalent. We can be certain who our parents were, but the fact itself cannot be evident to us.

About God, there are only a few conclusions which can strictly be demonstrated. One is the truth that God exists. Ockham gives a proof for this truth in the *Ordinatio* and in his *Questions on Physics*, but he nowhere goes into a detailed presentation of it. In both places he starts with a criticism of the proof advanced by Duns Scotus, which in our opinion is the most powerful and most developed proof of this kind elaborated by any scholastic in the Middle Ages. Ockham, the logician, directs his criticism mainly against the idea of efficient causality used by Duns. Ockham does not deny that God is the first efficient cause, but he believes it is difficult to prove that in the order of efficient causes an infinite series of causes is impossible, so that a first efficient cause must be asserted. Ockham argues, however, that this difficulty does not arise if we consider conservation instead of origination. In a series of *efficient* or *producing*

causes we are not logically bound to postulate co-existence in time of all the causes belonging to the same series ; but in a series of *conserving* causes, where one thing maintains another in being, and the former is being maintained, and so on, it follows *ex hypothesi* that the whole series must be simultaneously existing. Hence an infinite series would, in this case, entail the actual co-existence of an infinity of separate beings, and that is considered to be impossible.

Ockham's criticism of Duns Scotus is directed, therefore, against the actual form, but not against the main principle of his proof. Ockham also criticises, it is true, certain distinctions used by Duns, but this does not invalidate the general idea that there is at least one case where an infinite series is impossible, viz. a contemporaneous infinity of separate beings, each conserving another. This idea of conservation used in Ockham's proof is distinctively Christian ; it is entirely foreign to Aristotelian thought, since Aristotle has no idea of creation, nor of any relation of efficient causality between God and the world. We only regret that Ockham did not elaborate this proof in detail and did not connect the idea of conservation with that of the essential temporality in every creature, the idea which he so strongly defended against St Thomas Aquinas and Duns Scotus. For the idea of an '*Aevum*'—that is, of a created eternity —is rejected by Ockham. In this, to some extent, he follows St Bonaventure. For like the Seraphic Doctor, Ockham believed that it is impossible for a creature to possess the fullness of its being in one instant without any succession in its very being. What is produced must be in time ; if it were not, it could not be annihilated, nor would it be contingent.

According to Ockham, there are certain divine attributes that can be demonstrated, for instance that God is an intellectual nature. For it follows formally that if God is the highest being, God must have both intellect

and will. Ockham unfortunately does not enlarge on these demonstrations any more than he enlarges on those already mentioned. It is possible that he postponed them for treatment in his intended and promised exposition of Aristotle's *Metaphysics*, which he never found time to write. In any case, he seems to have been interested rather in showing how much it is *not* possible to demonstrate.

Thus, according to Ockham, we cannot *demonstrate* that there is only one God. The problem whether the unicity of God can be demonstrated or not was variously answered by the scholastic philosophers. Moses Maimonides, the great Jewish philosopher, denied the possibility. Duns Scotus tried hard to demonstrate it, but seems to have been left unsatisfied by all his demonstrations. For his part, Ockham denies the possibility ; for, he says, the proof of God's existence does not carry us beyond the proposition 'God is a being not surpassed by anything else in His perfection' ; and this by no means implies that God excels everything that is different from Him. God, it is true, will not be *excelled* by any being that equals His perfection ; but neither will He excel it. There being no demonstrative argument in favour of God's unicity, Ockham falls back on a persuasive argument—one that he seems to have borrowed from Duns. It runs like this : Our proof of God's existence leads us to a being that exists of itself and hence exists necessarily. Suppose, now, that two gods exist. To say that two gods exist is to say that two gods of the same nature and of equal perfection may possibly exist—and that this involves no contradiction. If we can suppose that two gods exist, then there is no reason why we cannot suppose that three, four or even an infinity of such gods exist. But since, in God, that which is possible is also necessary ; and since that which is necessary must exist ; it would follow that by necessity an infinity of gods exist ; but an infinity of separate beings is in-

admissible. And since an infinity of gods cannot exist, it follows that not even more than one God can exist and does exist, because of the contradiction that would be implied.

Similar arguments, probable or persuasive in the sense explained before, can be made for the truth that God knows things outside Himself, and that God is free as regards producing creatures. The same holds for God's infinity, for God's omnipotence (in the Christian sense), and for other attributes of God. In the discussion of these the logician is all the time at the elbow of the metaphysician and the theologian, ever reminding them that the requirements of a demonstration are exacting and difficult to fulfil. In a strictly scientific metaphysics Ockham wants only demonstrative conclusions ; he does not want convictions, well-founded as they may be. What the neo-scholastics would call physical or moral certitude, he leaves to apologetics. A Christian thinker is certainly equipped to see more clearly and farther than a pagan philosopher. However, he must not present his well-founded arguments as strict demonstrations ; for in so doing he would expose his faith to the danger of being ridiculed.

5. *On Creatures*

When dealing with philosophical problems concerning creatures Ockham never loses sight of the central idea that everything that is not God is radically contingent ; for to be created means to be entirely dependent on the free will of God. That our world is what it is is due to a free decision of God. To interpret this doctrine as meaning that God has ultimately an arbitrary will is to overlook Ockham's belief that God not only has a free will but is also infinitely wise and good. But His wisdom is a free wisdom, His goodness a free goodness ; He is bound only by the law of contradiction, if this means being bound at all.

Ockham accepts the system of the world commonly believed in by thinkers of the Middle Ages. The world is created in time—though with St Thomas Aquinas and Duns Scotus Ockham thinks that the beginning of the world in time cannot be demonstrated ; it is finite and has a certain order. Everything is created for man, and man is created for God. The earth is in the centre of the universe, surrounded by the spheres of the planets and stars. Another world like ours is possible. The material element in all bodies, both heavenly and earthly, is of the same nature. All created beings are divided into two groups, the spiritual and the material.

Every reality found in creatures can be reduced ultimately to two classes of categories : substances and qualities. Only these two categories signify or denote distinct entities ; all the other categories mentioned by Aristotle are connotative terms, which denote either a substance or a quality and connote something else. Thus 'quantity', for instance, is a term denoting either a substance or a quality ; what it connotes is that the substance or quality in question has parts distant from each other. 'Relation' denotes two entities (substances or qualities), and connotes that one of these entities is being compared with the other, and so on. So, too, for all the other categories.

Therefore place, surface, line, point, number, are not to be regarded as entities distinguishable from the bodies of which they are predicated. Likewise, time is not an entity separate from a being which exists in time or which has its being not all at once but successively. The same is true for motion, which is not an absolute entity distinct from the body in motion. In order to explain the cosmological facts—the spatio-temporal position and configuration of bodies, their number, their change and motion—Ockham needs only, in his cosmos, bodies that are distinguishable in virtue of their forms and qualities. Genuine changes are found only in substances and

qualities. But even in this simplified world, Ockham is still careful not to allow any other absolute entity to creep in which cannot be proved necessary for a full explanation of the facts. Thus he refuses to accept the theory that explains projectile motion by some quality given to a stone thrown into the air. It is sufficient to assume that the motion imparted by the hand to the stone remains until it is impeded. Hence he does not follow the old theory according to which the stone is kept in motion by the surrounding air, nor does he accept the 'impetus theory', according to which the projected object receives the 'quality' of impetus.

Ockham has left us only a few remarks on the nature of man. He is in line with the general tenets of the theologians. He follows the Franciscan school in holding a plurality of forms in a human being ; he believes that there is a real difference between the rational or intellective soul and the sensitive soul, and furthermore between the sensitive soul and the form of the body. It cannot be demonstrated (in the technical sense) that the rational soul is a form of the body ; we are assured of this by the teaching of the Church.

The rational soul is absolutely simple and is not distinct from its faculties, whether really (as St Thomas thought), or formally (as Duns Scotus thought). The activities of this one simple soul are distinguished into cognitive and appetitive functions, both of which can be stabilised by habits which as additional forms are accidental and really distinct forms of this soul. The liberty of the will can be evidently proved, since we do experience that we are the cause of free acts.

6. *Ethics*

Ockham's ethical theory is sometimes called positivistic ; and this is true in so far as the Venerable Inceptor maintains that a human act is good or moral, not because

it is in conformity with an eternal law which exists of itself and even governs the will of God, but simply because it is ordained and commanded by the will of God. Hence what God wills is good, what He forbids is bad. It is, by definition, an impossibility that God can ever order or command a bad thing. It follows that God's will is the ethical norm and must be obeyed by every creature. Once more, we have to remind the reader that God's will is identical with God's intellect, wisdom and love. The one living God, the omnipotent and merciful God, is the supreme rule of ethics. If, however, in a mental experiment we set aside all other attributes of God and view only God's power in itself, we may then admit the principle that God can do by this absolute power everything that does not contain a contradiction ; and in this sense, absolute and purely logical, it is true that God can command anything He pleases. For God is nobody's debtor, and He is only restricted—if this can be called a restriction—by the impossibility of what contains a contradiction. Hence God can command everything with this power, except not to obey Him. As soon as a human person knows that a certain command is the will of God, he is bound to obey. To do the will of God or, equivalently, to love God, is the supreme ethical rule.

However, it is well known that Ockham admitted that God can command by His absolute power that a person should hate Him or at least not love Him. It is important to note that this possibility is admitted in the purely ontological and logical realm. For in this realm there cannot be a contradiction, since it is a fact that creatures can command others to hate God; the command, therefore, is a reality, considered as a mental or spoken sentence, and every reality has God as its primary cause. In the ethical realm, however, an antinomy is encountered, the only real antinomy in Ockham's philosophy. If God commanded a creature to hate Him or simply

not to love Him, the creature would be obliged to obey, but it could not obey since in obeying it would love Him. Since the ethical laws are not propositions (which alone are true or false and between which alone genuine contradictions can occur), but are commands, their ultimate source must be a will, and not any impersonal thing of the ontological sphere, nor any proposition of the logical sphere. Briefly, the command to hate God is not a logical or ontological impossibility, but to fulfil this command is an ethical impossibility.

For the rest, Ockham's ethics remain within the general limits of scholastic teaching.

7. *Politics*

It now remains to say at least a few words about Ockham's political ideas. His interest was not so much focused on political theories in general, as on the special problem of the relation between State and Church, or, more concretely, the relation between the Papacy and the Roman Empire of his days. It cannot be our task to enter into a discussion of the purely ecclesiastical controversies concerning the limits of the power of the Pope within the Church, the rights of a general Council, and so on—besides, there is little here that is definitely established as to Ockham's teaching.

Ockham maintains, on the one hand, a clear distinction of spiritual and temporal power ; and nevertheless, on the other, no severance but rather a co-ordination of the two powers. The spiritual power is autonomous ; it is directly from God and absolutely independent in its own realm ; likewise the secular or temporal power is from God through the people, who decide on or elect their ruler, and it also is independent in its own realm and governed only by natural law.

The ruler of a nation has been appointed by the people either directly or indirectly through his ancestors ; how-

ever, he does not *owe* his power to the people but only to God. Hence the people cannot arbitrarily take away this power from him, but only in cases specified either by positive or by natural law. A case for deposing a ruler under natural law would be, for instance, if the ruler proved to be unfit or even actually dangerous to the common good.

It can be said that in general Ockham appears to favour moderate opinions in regard to the hotly disputed political questions of his time. He did not defend the absolute power of the State or the Emperor, nor did he follow the so-called 'curialists' in their exaggerations of the power of the Pope.

Let us close this short sketch with the words in which Ockham expressed his ideal of a commonwealth of all nations: 'Therefore, he is not truly zealous for the common good, who does not desire and work, as far as he can in his station, for the whole world to be subject to one monarch'.[1]

* * *

Ockham's philosophy had an enormous influence. But it seems that he had few disciples. It is difficult to find an 'Ockhamist' school in the same sense as we encounter a Thomist or Scotist school. Ockham's teachings had, rather, a stimulating effect. They awakened many somewhat independent thinkers who were united at least against the realism of the older scholastics. These '*Nominales*' (in the mediaeval sense) constituted the *via moderna*, which was not so much a school as a trend of thought. It is still too early to pass judgment on this great intellectual movement. One historical fact, however, seems to be quite securely established: it was the physics of the *via moderna* which gave birth to modern physics.

[1] *Breviloquium de potestate Papae*, LIB. IV, C. 13.

BIBLIOGRAPHICAL NOTE

OCKHAM's works may be divided into two major groups which seem also to belong to two different periods of literary activity. To the first group belong nearly all works written before his open conflict with the Papacy ; to the other group, all works directly or indirectly concerned with this conflict. We shall call the former his non-political writings ; the latter (following the example set by the editors of that group) we shall refer to as the political writings—although not all of them are concerned with the discussion of political questions.

A. OCKHAM'S NON-POLITICAL WRITINGS

A critical edition is being prepared under the general editorship of E. M. Buytaert (with the co-operation of I. Dám, G. Mohan, and E. A. Moody), under the title *Gulielmi Ockham Opera omnia philosophica et theologica*, St Bonaventure, N.Y., & Paderborn. The first volume is in the press : *Expositionis in libros artis logicae prooemium et Expositio in librum Porphyrii de praedicabilibus*, ed. E. A. Moody (see below I.1).

I. WRITINGS ON LOGIC

1. *Expositio super librum Porphyrii.* An explanation of Porphyry's *Introduction* to Aristotle's *Categories*, dealing with the five predicables 'genus', 'species', 'differentia', 'property', 'accident'. The only complete edition is the one made by Marcus de Benevento (Bologna 1496). The work was composed, most probably, after the *Commentary on the Sentences* (see below III.1).
2. *Expositio super librum Praedicamentorum.* An explanation of Aristotle's *Categories*, dealing with the ten most generic

predicates (viz. substance, and the nine categories of accidents—quantity, quality, relation, etc.). There is only one complete edition, that of Bologna 1496—cf. 1.1 above. This work was written after the former.

3. *Expositio super duos libros Perihermenias.* An explanation of Aristotle *On Interpretation*, dealing with propositions, their analysis, their truth and falsity, their classification and their opposition and conversion. Only complete edition : Bologna 1496. The work was written after 1.2 above.

   This, together with the two preceding works, was published in one volume by Marcus de Benevento, who called it *Expositio aurea super artem veterem.* The title is not justified by the manuscript tradition.

4. *Expositio super duos libros Elenchorum.* An explanation of Aristotle *On Sophistical Refutations*, which constitutes the ninth book of the *Topics.* It deals with fallacies. There is no printed edition. It was written after 1.3.

5. *Summa totius logicae.* This work deals in three parts with (1) terms, (2) propositions, and (3) arguments. It was written certainly before 1328, and probably after 1320. It is preserved in many manuscripts and many printed editions. New edition by Ph. Boehner in Franciscan Institute Publ., Text Series, No. 2, *Pars Prima*, St Bonaventure, N.Y., and *Pars Secunda* et *Tertiae prima*, *ibid.* 1954 ; the end of the Third Part will be edited by I. Dám.

6. *Compendium logicae* or *Tractatus logicae minor.* A very condensed presentation of logic, following the general outline of the *Summa totius logicae*, and preserved, as far as we know, only in one manuscript, viz. Assisi 690. Another manuscript of this work, destroyed in 1945, was dated 1345.

7. *Elementarium* or *Tractatus logicae medius.* Another systematic work on logic, shorter than the *Summa totius logicae*, but more extensive than the *Compendium logicae*, and written in a more personal style. As far as we know, it

is found only in one manuscript, viz. Munich, Staatsbibliothek, lat. 1060, which was written in 1348.

Concerning the authenticity, nature, and relation of these three works (I.5–7) on logic, cf. Ph. Boehner, 'Three Sums of Logic attributed to William Ockham', in *Franciscan Studies* XI (1951), pp. 173 sqq.

II. Writings on Physics

1. *Expositio super octo libros Physicorum.* An explanation of Aristotle's *Physics*. A work of major importance, of which there is no printed edition. It was written after I.1–4, as is shown by the references to these works. An edition is being prepared by G. Mohan (*Opera omnia phil. et theol.*).
2. *Summulae in libros Physicorum.* A summary of Aristotelian physics, sometimes also called *The Natural Philosophy.* Only a part of this work was completed by Ockham. It seems to be one of the later works. There have been several editions since that of Bologna 1494.
3. *Quaestiones super libros Physicorum.* Questions on Aristotle's *Physics*. This work was certainly written after the *Quodlibeta* (see below III.3), which are frequently quoted in it. No edition is known to us. Thus far three manuscripts have been discovered, of which one is incomplete.

III. Works on Theology

1. *Ordinatio Ockham.* The first book of Ockham's commentary on the first book of the *Sentences* of Peter Lombard. The *Sentences* of Peter Lombard, a systematically arranged compilation of passages from the Fathers and theologians, was the official textbook of theology in the medieval universities. Ockham commented on all four books, the first of which deals with God, the second with creation, the third with redemption, and the fourth with salvation and the end of man. Ockham's comments are

written in the form of questions dealing with certain problems in the official textbook or with problems in some way connected with it. The first book of Ockham's commentary on the *Sentences* is called the *Ordinatio* because he 'ordered' or prepared it for publication on the basis of his lecture notes. There is evidence that he revised his original text at least twice, mostly by minor additions. The *Ordinatio* was finished before 1323. It exists in many manuscripts and two printed editions (Strasbourg 1483 and Lyons 1495). It is the main source for Ockham's theological and philosophical doctrines. A new edition is being prepared by E. M. Buytaert (*Opera omnia phil. et theol.*).

2. *Reportatio Ockham.* Ockham's questions on the second, third, and fourth books of the *Sentences.* It is much shorter than III.1, since only a few questions are dealt with. In addition, several questions contained in the only printed edition (Lyons 1495) do not belong to the *Reportatio* ; they are not found in the better manuscripts. The problems regarding these questions—in particular whether they may be a special work of Ockham (perhaps *Quaestiones disputatae*)—are not yet settled. The work is called *Reportatio* because it is a 'report' of Ockham's lectures. The *Reportatio* is later than the lectures on the first book, which are now preserved only in the revised form of the *Ordinatio* (see above III.1) ; but while the lectures on the first book were revised and transformed into an *Ordinatio*, the *Reportatio* is still in its original state, and as such it now represents the earliest work of Ockham that has been handed down to us. A new edition is being prepared by E. M. Buytaert (*Opera omnia phil. et theol.*).

3. *Quodlibeta septem.* These contain discussions 'on anything and everything' (*quodlibet*). *Quodlibetum* is a technical term ; it means disputations which, with a certain solemnity, were held twice a year. On those occasions there was little restriction on the nature of the questions

which could be asked, though it was required that they should be discussed in the form of the scholastic disputation. It seems that Ockham's *Quodlibeta* are *reportationes*, since they are preserved in an unfinished and much condensed state. They were probably written before 1324, but certainly after his commentary on the *Sentences* (III.1, 2) and probably after II.1. There are several old printed editions of this work (e.g. Paris 1487–8 ; Strasbourg 1491).

4. *Tractatus de corpore Christi*, or *Primus tractatus de quantitate.*
5. *Tractatus de sacramento altaris*, or *Secundus tractatus de quantitate.* These two works (III.4, 5) deal with the problem of quantity, raised with a view to an explanation of the Holy Eucharist. There are a number of old editions and a modern one (by T. B. Birch, Burlington, Iowa, 1930) ; all these present both tracts as one work, but this procedure is not substantiated by the manuscript tradition.
6. *Tractatus de praedestinatione et de praescientia Dei et de futuris contingentibus.* A treatise on predestination and on the prescience of God. It deals with the problem whether God knows future contingent facts, that is, events which depend on an act of free will. The first edition formed part of the *Expositio aurea* (cf. I.3 above) ; there is also an edition by Philotheus Boehner in : Franciscan Institute Publications, Philosophy Series No. 2, St Bonaventure, N.Y., 1945.
7. *Quaestiones variae.* This is an artificial title for a group of questions which are printed in the edition of the *Reportatio* (cf. III.2 above), but which do not belong to its original form. They seem to have been composed later than the *Reportatio.*

B. POLITICAL WRITINGS

Since I have very little personal acquaintance with the textual tradition of these works, and since a critical

edition is now being prepared by the Manchester University Press (of which, so far, two volumes have appeared: *Guillelmi de Ockham Opera politica*, ed. J. G. Sikes, VOL. I, Manchester 1940; ed. H. S. Offler, VOL. III, *ibid.* 1956), I will confine myself to an enumeration of the principal writings, adding only a few remarks.

1. *Opus nonaginta dierum. The Work of Ninety Days*, so called because it was allegedly written within ninety days. It was Ockham's first work against Pope John XXII, concerning the controversy about the problem of Franciscan poverty. Written in 1333–4.
2. *De dogmatibus papae Joannis XXII.* Written in 1334.
3. *Contra Joannem XXII.* Written in December 1334–5.
4. *Compendium errorum papae Joannis XXII.* Written after the death of Pope John XXII, 4 December 1334.
5. *Tractatus ostendens quod Benedictus papa XII nonnullas Joannis XXII haereses amplexus est et defendit.* Written before 1342, probably 1337–8.
6. *Allegationes de potestate imperiali.* Written in 1338.
7. *Octo quaestiones super potestate ac dignitate papali.* Written between the years 1339 and 1342.
8. *An rex Angliae pro succursu guerrae possit recipere bona ecclesiarum.* Written between the years 1338 and 1340.
9. *Consultatio de causa matrimoniali.* Written *ca.* 1341.
10. *Dialogus.* This is the main work, where Ockham treats extensively of the question of the relation between Church and State, showing the pros and cons without revealing his own position. Hence it must be used with caution. It was written in 1334–8.
11. *Tractatus de electione Caroli IV.* Written in 1348.
12. *Breviloquium de principatu tyrannico.* Written *ca.* 1341–2.
13. *Tractatus de imperatorum et pontificum potestate.* This work reveals Ockham's surprisingly moderate position with regard to the problem of the relation between Church and State. Written *ca.* 1347.

C. SPURIOUS WRITINGS

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5. *De relatione*, ed. G. Mohan in *Franciscan Studies* XI (1951) [273] — [303].

D. SELECT BIBLIOGRAPHY OF WORKS ON OCKHAM

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I

ON THE NOTION OF KNOWLEDGE OR SCIENCE

Source:

Prologue to the *Expositio super viii libros Physicorum* 3

Prologue to the Expositio super viii libros Physicorum

Past ages have begotten and reared many philosophers distinguished by the title 'sage'. Like shining lights they have illumined with the splendour of their knowledge those who were plunged in the dark night of ignorance. The most accomplished man to have appeared among them is Aristotle, outstanding as a man of no slight or insignificant learning. With the eyes of a lynx, as it were, he explored the deep secrets of nature and revealed to posterity the hidden truths of natural philosophy.

Since many have tried to explain his books, it seemed to me, and to many earnest enquirers, desirable that I should write down for the benefit of students what I thought to be the mind and intention of Aristotle. None but the envious should object to my desire to communicate ungrudgingly what I regard as probable opinions on this work [1] of the great philosopher. For my aim is investigation pure and simple, and not obstinate quarrelsomeness nor ill will; and without any rash assertions I proceed to an explanation of what Aristotle's labours disclose. And just as at times, in all modesty and without malice, I shall disprove the opinions of others, so I am patiently ready to be corrected should I ever go against the truth. But let him who corrects me beware lest habitual adherence to bad principles, or bias, or hatred should make him sometimes pervert, instead of correct me. And he should also realise that I cannot accommodate myself to everybody's opinions when one opinion contradicts another.

Indeed, though the Philosopher has made, with God's help, many great discoveries, he has nevertheless, being human, mingled errors with the truth. Therefore, no-one

[1] Aristotle's *Physics*

may attribute to me these opinions that I am about to present, since I do not intend to express what I myself hold in accord with the Catholic faith, but only what I think the Philosopher has approved, or ought to have approved in accordance with his own principles. One may safely hold different and opposite opinions regarding the mind of an author, if he is not an author of Holy Scripture. And an error in this case is not a fault. Rather, in such a mental exercise, anybody may without risk retain freedom of judgment.

I am going to expound Aristotle's philosophy of nature, and I shall begin with his *Physics*, which comes first.

But before starting on an exposition of the text, I shall make a few preliminary remarks—as I have done at the beginning of the *Logic*. And lest perhaps the exposition of the *Logic* should not have come into the hands of some who will see the present work, it will not be amiss to repeat in part what was said there, with some additions.

First, then, we have to see what knowledge [1] in general is ; secondly, we have to lay down some distinctions concerning the term 'knowledge' ; thirdly, we have to draw a few conclusions from what is to be said ; and fourthly, we have to consider natural science in particular.

As to the first point, we must say that knowledge is a certain quality which exists in the soul as its subject, or a collection of several such qualities or forms of the soul. I am speaking here only of human knowledge.

This is proved as follows : Knowledge as a *habitus* ('habitual' knowledge) is no less such a quality than an act of knowledge is ; but an act of knowledge is such a quality ; therefore knowledge as a *habitus* is such a quality also. The major premise seems clear. I proceed to the proof of the minor : It is impossible that contradictory statements should successively be made true of something, unless there be some change somewhere, namely the acquisition or loss or production or destruc-

[1] Throughout, 'knowledge' and 'science' are both used for '*scientia*'.

tion of something, or a local motion. But, though there be no change in anything but the rational soul, the soul is able to consider something it did not consider before, merely by willing to consider something it did not consider before. Therefore the soul now has something that it did not have before. But this something cannot be anything but either an act of intellection or a volition; therefore either an act of intellection or a volition is such a quality. However, for the same reason that a volition is such a quality, an act of intellection also is such a quality. And consequently, for the same reason the *habitus* of knowledge is also such a quality or a collection of such qualities.

Furthermore, a faculty that now has only what it had before and nothing else, is no more ready in its action now than it was before. Yet it is manifestly our experience that after many acts of thought a person is more fit and more inclined to have similar acts of thought than he was before. Therefore he now has something that he did not have before. But this something can be only a *habitus*. Therefore a *habitus* exists in the soul as in its subject. But only a quality can be in the soul as in its subject; therefore, a *habitus* is a quality. Hence *a fortiori*, the *habitus* which is knowledge is a quality in the soul.

As to the second point, we must realise that 'knowledge' is taken in many senses. Hence, there are different meanings of 'knowledge', and one is not subordinated to the other.

In one sense, knowledge is certain cognition of something that is true. In this sense, some truths are known only on trust; for instance, when we say we know that Rome is a big city, although we have not seen Rome. In the same way I say I know that this person is my father and this person is my mother. And so with many other things that are not 'evidently' known. And yet because we adhere to these things without a shadow

of doubt, and they are true, we are said to know them.

In another sense, 'knowledge' means an evident cognition, namely when we are said to know something not merely because someone has told us about it, but should assent to it, even if there were no-one to tell us about it, mediately or immediately on the basis of a non-complex cognition of certain terms. For instance, if no-one told me that the wall is white, I should still know that the wall is white, just by seeing whiteness on the wall. It is the same with other truths. In this sense we have knowledge not only of necessary facts, but also of some contingent facts, whether it is that their existence or non-existence is contingent, or whether they are contingent in any other sense.

In a third sense, 'knowledge' means an evident cognition of some necessary truth. In this sense, no contingent facts are known, but only first principles and the conclusions that follow from them.

In a fourth sense, 'knowledge' [1] means an evident cognition of some necessary truth caused by the evident cognition of necessary premises and a process of syllogistic reasoning. In this sense, knowledge is distinguished from understanding, which is the possession of first principles, and also from wisdom, according to the teaching of the Philosopher in the sixth book of the *Ethics*.

Another distinction is the following. Sometimes 'knowledge' means evident cognition of the conclusion alone, sometimes of the demonstration as a whole.

According to another distinction, knowledge is sometimes taken for a *habitus* numerically one, which does not include several specifically distinct *habitūs* ; sometimes it stands for a collection of several *habitūs* related according to a certain and determinate order. In this second sense, the Philosopher frequently uses the term 'knowledge'.[2] And in this same sense, a science somehow contains as integral parts the possession of first principles

[1] Here='science' [2] Here='science' (ἐπιστήμη)

and conclusions, the concepts of terms, the rejection and refutations of sophistries and errors. In this sense, metaphysics is called a science and philosophy of nature a science, just as other sciences are so designated.

In the third place, from the preceding explanations some conclusions are to be drawn.

The first is that neither metaphysics nor philosophy of nature nor mathematics is numerically one piece of knowledge in the same way as this whiteness and this heat and this man and this donkey are each numerically one. Proof: Metaphysics contains many conclusions; now a man may know one conclusion and yet the same man at the same time may be in error regarding another. For we know from experience that at times, when a man has been in error regarding several conclusions, he learns first one conclusion and after that another. From this I argue as follows: Error about the conclusion *A* and scientific knowledge of *A* are formally incompatible; but error about *A* and scientific knowledge of *B* are not formally incompatible, since they coexist simultaneously. Therefore the notion of scientific knowledge of *A* and that of scientific knowledge of *B* are not the same notion; for if the notions of things are the same, then whatever is formally incompatible with one is likewise formally incompatible with the other. But if the notion of these pieces of knowledge is not one and the same, then, since it is clear that they are not mutually related as matter and form, they do not of themselves constitute a numerical unity, and consequently whatever includes them both is not of itself a numerical unity.

Furthermore, metaphysics contains a cognition both of first principles and of conclusions, and the same is true for the philosophy of nature. But the possession of first principles is distinct from the possession of conclusions: First, because the Philosopher says in the first book of the *Posterior Analytics* that the possession (*habitus*) of first principles is nobler than the possession of con-

clusions ; yet one and the same thing is not nobler than itself. Secondly, because the knowledge of the first principle is the cause of the conclusion ; yet one and the same thing is not the cause of itself. Hence we have to say that metaphysics is not a piece of knowledge which is numerically one. The same is true of the philosophy of nature, which is a collection of many *habitus*, as we have said before. It is one in the same sense that a city, or a nation, or an army, which includes men and horses and other necessary things, or a kingdom, or a university, or the world, is said to be one.

The second conclusion that follows is this. Any scientific knowledge has only two causes, if we use the word 'cause' in its proper sense, since every accident has only two causes, namely a final and an efficient cause. For, according to the Philosopher in the eighth book of the *Metaphysics*, an accident has no matter *out of* which it is produced, but only a material principle *in* which it is produced. Now, the matter *in* which something is produced is not the cause of the thing whose material principle it is ; for matter is not the cause of form, but only of the compound [of matter and form]. Therefore an accident has no matter. But if an accident has no material cause, it also has no formal cause. Hence, any accident has only two essential causes, namely a final and an efficient cause. But each piece of knowledge that is numerically one is a quality that is numerically one, as has been said. Therefore any such piece of knowledge has only two causes. When, however, something is an aggregate of many heterogeneous things, and none of these is a material principle for another, it follows, that if none of these has matter, then the aggregate as a whole has no matter either. Therefore the knowledge that is a collection of many such *habitūs* has no matter, and in consequence no formal cause either.

For this reason we must maintain that, literally speaking, any knowledge has only two essential causes, namely,

an efficient and a final cause. Hence, if the statement that all knowledge has a material and formal cause be true, it is so only in an improper and metaphorical sense. For in this case 'matter' means that with which knowledge is concerned. Yet this is an improper mode of speaking ; for in this way I could also say that colour is the matter of vision and that the colour is the material cause of perception and sensation. Likewise, it is only in an improper sense that the distinction between the parts of knowledge is called form ; for in this sense I could also say that the three lines are the formal cause of a triangle, and that the hands and the feet and the other limbs of man are the formal cause of man, which is not a proper way of speaking. Properly speaking, therefore, knowledge has only two causes, since it lacks a formal and a material cause. For, properly speaking, the material cause belongs to the essence of that of which it is a cause ; but the subject of knowledge does not belong to the essence of knowledge as is manifestly apparent. Again, properly speaking, a material cause receives the form in itself ; but neither the subject nor the object of knowledge receives in itself knowledge or any part of knowledge, since only the intellect receives knowledge. Therefore, properly speaking, neither the object nor the subject is a material cause of knowledge. Consequently knowledge has no formal cause either.

A third conclusion following from the preceding is this : A science which has only a collective unity has not just one subject ; rather it has different subjects according to its different parts. For only that about which something is known can be called a subject of knowledge ; yet, in a science that is only collectively one, there are many things about which different things are scientifically known ; therefore, such a science has not just one subject.

In order to explain this we must realise that the expression 'subject of knowledge' can be understood in

two different senses. In one sense it means that which receives knowledge and has the knowledge in it as in a subject, just as a body or a surface is the subject of whiteness, and fire the subject of heat. Understood in this sense, the subject of knowledge is the intellect itself, because any such knowledge is an accident of the intellect. Taken in the other sense, 'subject of knowledge' is said to be that about which something is known. It is thus that the Philosopher understands 'subject' in the *Posterior Analytics*. In this sense the subject of knowledge is the same thing as the subject of a conclusion, and it is called 'subject' only because it is the subject of a conclusion. If, therefore, there are different conclusions with different subjects—'subject' being taken in the sense in which the logician uses it—then that science which is an aggregate of all these scientifically known conclusions has not just some one subject, but the different parts have different subjects. Should all the conclusions, however, have the same subject, then the entire aggregate has but one subject, namely that which is the subject of all these conclusions.

We must also realise that there is a difference between the object and the subject of knowledge. For the object of knowledge is the whole proposition that is known ; the subject, however, is only a part of this proposition, namely the subject-term. For instance, the object of my knowledge that every man is educable is the entire proposition ; its subject, however, is the term 'man'.

From this it becomes clear that it is no part of the concept of 'a subject' that it should 'virtually' contain the whole knowledge of the conclusions, or be something which comes first, and to which everything else is referred. And the same holds good for many other such supposed implications of the concept 'subject'. For the subject no more 'virtually' contains a *habitus* than the predicate does, nor are all these things attributed more to the subject than to something else. And if this sometimes happens, it is only by accident.

From this it is clear that it is meaningless to ask 'What is the subject of logic or of the philosophy of nature, or of metaphysics, or of mathematics, or of ethics?' For such a question presupposes that something is *the* subject of logic, and likewise that something is *the* subject of the philosophy of nature. But that is manifestly false, because there is no one subject of the entire science, but the different parts have different subjects. Hence to ask 'What is *the* subject of the philosophy of nature?' is like asking 'Who is the king of the world?' Just as there is no-one who is the king of the world, but one man is king of one kingdom and another of another kingdom, so also with the subjects of the various parts of such a science. There is no more reason for a science, which is such a collection, to have one subject than for the world to have one king, or for one kingdom to have one count.

But since certain authors seem to assign one subject to such sciences, we must, in order to understand what they say, bear it in mind that they do not mean that something is properly speaking the first subject of the whole science. What they wish to say is that amongst all the subjects of the various parts there is one which is the first because of some priority. Sometimes one subject is first as regards one sort of priority, while another is first as regards another sort of priority. For instance, in metaphysics 'being' [*ens*] is the first subject of all as regards priority of predication, whereas the first subject as regards priority of perfection is 'God'. Likewise in the philosophy of nature the first subject as regards priority of predication is ' natural substance' or something of that kind, but the first as regards priority of perfection is 'man' or 'heavenly body' or something like that. This is what authors have in mind when they use such expressions, and nothing else.

In the fourth place, we must consider the science of nature more in detail. We have to see what it deals with, how it is distinguished from other sciences, under which

part of philosophy it is contained ; and then we have to consider the *Physics* in particular.

Concerning the first point, we must say that the philosophy of nature deals primarily with sensible substances composed of matter and form, and in the second place with certain separate substances.

In order to understand this, we must know that all knowledge has to do with a proposition or propositions. And just as the propositions [*complexa*] are known by means of a science, so also the non-complex terms of which they are composed are that subject matter which is considered by a science. Now the fact is that the propositions known by natural science are composed not of sensible things or substances, but of mental contents or concepts that are common to such things. Hence, properly speaking, the science of nature is not about corruptible and generable things nor about natural substances nor about movable things, for none of these things is subject or predicate in any conclusion known by natural science. Properly speaking, the science of nature is about mental contents which are common to such things, and which stand precisely for such things in many propositions, though in some propositions these concepts stand for themselves, as our further exposition will show. This is what the Philosopher means when he says that knowledge is not about singular things, but about universals which stand for the individual things themselves. Nevertheless, metaphorically and improperly speaking, the science of nature is said to be about corruptible and movable things, since it is about the terms that stand for these things.

I now prove this. For instance, I take the proposition 'Every sensible substance is composed of matter and form'. The subject here is either a thing outside the mind or a mental content or a word. If the subject is a thing, it is certainly not a common thing, since such a common thing does not exist, as will be shown later

and as has been frequently shown elsewhere. Consequently, it is a singular thing. But there is no more reason why it should be this one singular thing than another. Therefore either every single thing is the subject or none of them are. But not every one of them is the subject, because there are many things unknown to him who knows such a proposition, since there are many things of which he has never thought. Consequently, none of these things is subject in the proposition. Therefore the subject of such a proposition is a mental content or a word ; which is our intended conclusion.

To this it could be objected : A real science is about things. Since philosophy, then, is a real science, it must be about real things. Consequently, it is not about mental contents.

Likewise, logic is distinguished from other sciences by the fact that logic is about mental contents ; whereas the other sciences are not.

To the first of these objections we have to say : A real science is not about things, but about mental contents standing for things ; for the terms of scientifically known propositions stand for things. Hence in the following scientifically known proposition, 'All fire is warming', the subject is a mental content common to every fire, and stands for every fire. This is the reason why the proposition is called real knowledge [that is, knowledge concerning real things].

The same answer applies to the second objection. Logic is distinguished from the real sciences in the following manner. The real sciences are about mental contents, since they are about contents which stand for things ; for even though they are mental contents, they still stand for things. Logic, on the other hand, is about mental contents that stand for mental contents. For instance, in this proposition, 'A species is predicated of numerically distinct things', the subject is a mental content which stands for mental contents only and not for

things outside the mind, for nothing outside the mind is predicated of many things, except, by convention, a spoken or written sign.

We should realise, however, that the reason why we deny logic to be a real science is not that it is not a thing, for logic is just as truly a thing as the science of nature is. We deny it to be a real science because it is not about mental contents that stand for real things. Briefly, then, all authorities stating that such a science is about such and such a thing, ought to be glossed in the following manner : 'This science is about terms which stand for such things'. For instance, to say that a science is about things that can be generated or corrupted means that it is about terms standing for such things in scientifically known propositions.

It is also clear from what has been said how a science of movable and corruptible things is possible. For there is one term common to such things, and of this term proper attributes [*passiones*] are necessarily predicated. The common term 'corruptible body', for instance, is a term common to every corruptible thing, and many attributes are necessarily predicated of it. In like manner there is also a science of impossibilities. For this common term 'impossibility' is common to all impossibilities, and of this common term there is something truly predicated, which holds for all impossibilities. For this is true : 'Any impossibility goes against a necessity'. Thus of this common term 'impossibility' something is necessarily predicated and genuinely known. And so it is with other terms. For of the common term 'accidental being' something is truly and necessarily predicated. Therefore a science about this common term is possible. And yet, properly speaking, there can be no science about the thing of which this common term is predicated. Only in an improper sense is a science of such a thing possible, as I have already explained when I said that there is a science of 'generable' things.

For this reason many distinctions are not valid, for instance that mobile or mutable things can be considered either in this or that way, and that they are mutable considered in one way but immutable in another, and that they are contingent in one way but necessary in another. For with the same ease I could say that a man considered in one way is an ass, considered in another way he is an ox, and considered in a third way he is a she-goat.

Therefore, we must understand that it does not depend on your consideration or mine whether a thing is mutable or immutable, contingent or necessary and incorruptible, any more than it does whether you are white or black, or whether you are inside or outside the house. On the other hand, it does certainly depend on the different *suppositio* [1] of the terms whether a predicate is truly predicated or truly denied of a term. Hence, in order that this proposition be true, 'The mutable thing is the subject or is that about which there is a science', what is important is not the consideration of the thing outside the mind but the *suppositio* of the term 'mutable thing'. For if it has simple *suppositio*, i.e. if it stands for itself, then our proposition is true: '"Mutable thing" (i.e. this common term "mutable thing") is that about which something is scientifically known'. If, however, it has personal *suppositio*, then it is false, because every singular proposition of this kind is false. Hence, it is the different *suppositio* of the same term that causes something to be truly denied and truly affirmed of this term. For if, in the proposition 'Man is a species', 'man' has simple *suppositio*, the proposition is true; and if, in the proposition 'Man is not a species', the same term has personal *suppositio*, then this proposition likewise is true. However, to say that a thing outside the mind is mutable according to one viewpoint and that it is immutable according to another, is simply false and asinine talk. Thus I could say for instance that Socrates is white from

[1] See Introduction above, pp. xxxiv ff.

one viewpoint, but black from another. Of course, I could use the same term (i.e. 'Socrates') in an equivocal manner, and I could mean in the first case a white man and in the other another man who is black. In this case, of course, the proposition 'Socrates is white' is true, if this name 'Socrates' refers to the white man ; and the proposition 'Socrates is black' is also true, if it refers to the black man. As it is the same in the proposition 'Every dog is an animal' ; if 'dog' stands only for an animal which can bark, the proposition is true ; but if the term 'dog' stands only for a star in the heavens, it is false.

The method handed down by the Philosopher is to make distinctions concerning propositions in this way, and not to say that the same thing from one point of view is a donkey, and from another a she-goat. Nowhere do we find the Philosopher using such a manner of speech. It is just such a way of speaking that occasions many errors in the simple and uninitiated.

Concerning the second point, we must recognise that this science [philosophy of nature] is distinguished from other sciences either by its subjects or by its predicates. For here a distinction based either on the subjects or on the predicates of conclusions about the subjects suffices to distinguish sciences. Just how this has to be understood will be better explained, perhaps, when we shall deal with the exposition of the *Metaphysics*. In any case, we must recognise that the same truth may pertain to different sciences, as we have shown elsewhere.

Concerning the third point, we note that this is a theoretical science for the most part. For a science that does not treat of what we do is speculative. But this science is the kind that is not about what we do ; therefore it is speculative. But should there be some part of the philosophy of nature that provides a directive knowledge for the performance of actions, this part would be practical, not theoretical.

Concerning the fourth point, this book is called the *Physics*, in other words, 'the book concerning the things of nature', in the sense explained above. It is also called the *Lectures on Physics*, perhaps because the audience listening to this book only took notes on it. This, however, is not of much consequence.

II

EPISTEMOLOGICAL PROBLEMS

Sources:

1	Prologue to the *Ordinatio*, Q. i, N *sqq.*	21
2	*Quodlibeta*, VI, Q. vi	28
3	*Quodlibeta*, I, Q. xiii	30
4	*Summa totius logicae*, I, C. xiv	35
5	*Summa totius logicae*, I, C. xv	38
6	*Summa totius logicae*, I, C. xvi	40
7	*Ordinatio*, D. II, Q. viii, prima redactio	44
8	*Expositio super librum Perihermenias*	46

[*The basis of immediate cognition*]

1. First I intend to show that our intellect, even in this life, can have two specifically distinct kinds of non-complex knowledge even when it is concerned with the same object under the same aspect. The one may be called intuitive, the other abstractive cognition. . . .

In order to explain this first conclusion, I shall present a few preliminary distinctions and conclusions ; after that I shall prove the conclusion which is principally intended.

The first distinction is between two acts of the intellect. The first act is an act of apprehension and relates to everything that can be the term of an act of the intellective power, whether this be something complex or non-complex. For we apprehend not only that which is non-complex, but also propositions and demonstrations, and impossibilities and necessities, and, in general, anything within the scope of the intellective power. The second act may be called an act of judgment, by which the intellect not only apprehends its object, but also gives its assent or disssent to it. This act has to do with a proposition [*complexum*] only. For our intellect does not assent to anything unless we believe it to be true, nor does it dissent from anything unless we believe it to be false. It is clear, therefore, that in reference to a proposition, a twofold act is possible, namely an act of apprehension and an act of judgment.

Proof : It is possible that someone apprehends a proposition, but nevertheless gives neither assent nor dissent to it ; this is clearly true, for instance, of indifferent propositions, to which the intellect gives neither assent nor dissent, because otherwise they would not be indifferent for it.

Likewise, a layman who does not know Latin may

hear many propositions in this language to which he gives neither assent nor dissent. On the other hand, it is certain that the intellect can give its assent to one proposition and its dissent to another proposition. Therefore, apprehension and judgment are distinct.

The second distinction is, that just as in regard to a proposition there can be a twofold act, so also there can be two corresponding *habitūs*; the one inclines the intellect towards an act of apprehension; the other towards an act of judgment.

This distinction is manifest. For after someone has frequently apprehended an indifferent proposition, he finds himself more inclined to apprehend and think about this proposition than he was before. Therefore he has now a *habitus* inclining him towards acts of apprehension. The fact that there is also a *habitus* inclining one towards acts of judgment is clear from the statement of the Philosopher in the sixth book of the *Ethics*, where he affirms the existence of [the several *habitūs* of] understanding, knowledge, etc.

First preliminary conclusion: The act of judgment in reference to a proposition (*complexum*) presupposes an act of apprehending the same proposition. . . .

Second conclusion, following from the preceding discussion [here omitted]. Every act of judgment presupposes in the same faculty a non-complex cognition of the terms; for it presupposes an act of apprehension, and the act of apprehending a proposition presupposes non-complex cognition of the terms. . . .

Third conclusion: No act of the sensitive part of the soul is either partially or totally the immediate and proximate cause of the intellect's own act of judgment.

A persuasive argument can be adduced for this conclusion. If we assume that contents of the intellect suffice as proximate and immediate causes to produce some act of judgment, then they suffice to produce every such act. Now contents of the intellect suffice for some

act of judgment, namely a conclusion ; because when the knowledge of the premises is in the intellect, the conclusion is immediately known without the help of anything else. Therefore contents of the intellect suffice as the proximate cause of every act of judgment.

Furthermore, since the causes existing in the intellective part can be sufficient, the assumption of other causes is superfluous.

Given these premises I shall prove the main conclusion as follows. Any non-complex cognition of terms that can cause evident cognition of a proposition composed of these terms, is specifically distinct from a non-complex cognition which, no matter how intense it is, cannot cause evident cognition of the same proposition. This is manifest. For things of the same kind that are equally perfect can produce effects of the same kind in the same object when this is equally disposed to receive the effect. This the Philosopher shows in the seventh book of the *Topics*. Now it is certain, as experience teaches, that the intellect can have a non-complex cognition of both Socrates and whiteness, on the strength of which it cannot know evidently whether Socrates is white or not. But besides this knowledge, the intellect can have another cognition by which it is able to know evidently that Socrates is white, if he is white. Hence the intellect can have two non-complex cognitions of these things : the one cognition can cause evident knowledge of this contingent proposition ; and the other cannot, no matter how intense it is. Therefore these two cognitions are specifically distinct. . . .

The second main proof : Whenever an intelligible thing can be known only by intellect and in no way by sense, if there can be one non-complex cognition of the thing that suffices for evident knowledge of a contingent truth and another that does not suffice, then the two cognitions are specifically distinct. But acts of intellect,

emotions, pleasures, griefs and the like, can be apprehended only by the intellect and not by the sense-faculty. Now some non-complex knowledge of them suffices for evident knowledge of whether they exist or not, and whether or not they exist in such and such a subject. Yet not all non-complex knowledge of them suffices for this ; therefore, etc. The first part of the minor premise is shown thus : Everyone experiences in himself that he understands, loves, is pleased, is sad. Since such knowledge concerns contingent facts, it cannot be obtained from necessary propositions. Therefore, either (1) it must be obtained from a non-complex knowledge of the terms, or the things for which the terms stand, or (2) from a contingent proposition obtained from non-complex cognition of the terms or things, or (3) we can go on *in infinitum* with such contingent propositions. The third case is impossible, since there must be an end in the series of such propositions. If the second case is assumed, then the contingent proposition either contains some term which can be obtained from a sensible object, or it does not. The first alternative cannot be admitted ; for there is no proposition about a sensible thing from which it would necessarily follow that love is occurring in the will, as will be made clear elsewhere, and consequently there is no contingent proposition in virtue of which it is evidently knowable that this man loves. If the second alternative is conceded, we have the result we wanted : that a non-complex knowledge of purely intelligible terms is sufficient for evident knowledge of such a contingent truth. The second part of the minor premise is shown thus : There is no inconsistency in the supposition that someone does not know whether a certain intelligible thing exists or does not exist, and has nevertheless a non-complex cognition of it ; this is no more inconsistent than the corresponding supposition about a certain sensible thing. If, therefore, someone's intellect should directly perceive another person's love

and he were thus as certain of this other person's love as of his own love, then there would not be any difficulty about supposing that later on he could still think of this love and nevertheless not know whether it continued to exist, even though it did still exist ; just as may happen with some sensible thing which is first seen and then thought of.

This second argument proves that it is possible for the intellect to have this twofold cognition and to have it about purely intelligible facts, whereas the first proves that our intellect actually has this twofold cognition in the present life, and has it even as regards sensible facts. . . .

I maintain, therefore, . . . that there are two ways of knowing something non-complex. The one can be called 'abstractive cognition', the other 'intuitive cognition'. But I am not concerned whether others wish to call this non-complex cognition 'intuitive cognition' or not. For what I intended to prove in the first instance was just that our intellect can have two specifically different non-complex cognitions of the same thing.

We must realise, however, that the term 'abstractive cognition' can be taken in two senses. In one sense it means cognition that relates to something abstracted from many singulars ; and in this sense abstractive cognition is nothing else but cognition of a universal which can be abstracted from many things. We shall speak about this later. If such a universal is a true quality existing in the mind as its subject—which is a probable opinion—then it must be conceded that such a universal can be intuitively known and that the same knowledge is intuitive and also abstractive, according to this first meaning of 'abstractive'. And in this sense 'intuitive' and 'abstractive' are not contrasted.

Abstractive cognition in the second sense abstracts from existence and non-existence and from all the other conditions which contingently belong to or are predi-

cated of a thing. This does not mean that something may be known by intuitive cognition which is not known by abstractive cognition ; rather, the same thing is known fully, and under the same aspect, by either cognition. But they are distinguished in the following manner. Intuitive cognition of a thing is cognition that enables us to know whether the thing exists or does not exist, in such a way that, if the thing exists, then the intellect immediately judges that it exists and evidently knows that it exists, unless the judgment happens to be impeded through the imperfection of this cognition. And in the same way, if the divine power were to conserve a perfect intuitive cognition of a thing no longer existent, in virtue of this non-complex knowledge the intellect would know evidently that this thing does not exist.

Then, too, intuitive cognition is such that when one thing known by means of it inheres as an accident in another, or is locally distant from the other, or stands in some other relation to the other, then non-complex cognition of these things gives us an immediate knowledge whether a certain thing inheres or does not inhere in another, or whether it is distant from it or not, and so for other contingent truths ; unless this cognition is too weak, or there be other impediments. For instance, if Socrates is in reality white, then knowledge of Socrates and of whiteness is called intuitive cognition, when it can be evidently known in virtue of such knowledge that Socrates is white. Generally speaking, any non-complex cognition of one or more terms or things, is an intuitive cognition, if it enables us to know a contingent truth, especially about present facts.

Abstractive cognition, on the other hand, is that knowledge by which it cannot be evidently known whether a contingent fact exists or does not exist. In this way abstractive cognition abstracts from existence and non-existence ; because, in opposition to intuitive

cognition, it does not enable us to know the existence of what does exist or the non-existence of what does not exist.

Likewise, through abstractive cognition no contingent truth, in particular none relating to the present, can be evidently known. This is clear from the fact that when Socrates and his whiteness are known in his absence, this non-complex knowledge does not enable us to know whether Socrates exists or does not exist, or whether he is white or is not white, and the same for other contingent truths. But yet it is certain that these truths can be evidently known. And any complex knowledge of terms, or of things signified by terms, is ultimately reduced to non-complex knowledge of terms. Hence these terms or things can be known by a cognition which is different from that which cannot give us knowledge of such contingent truths ; and this will be intuitive cognition. And it is from this that empirical knowledge begins ; for, generally speaking, he who is enabled by observation to know a contingent truth and, by means of this, a necessary truth, has non-complex knowledge of some term or thing which another who is unable to make this observation cannot have. And therefore, just as the knowledge of sensible facts that is obtained from experience (as the Philosopher says in the first book of the *Metaphysics* and in the second book of the *Posterior Analytics*) begins with the senses, i.e. from a sense-intuition of these sensible facts, so in general the scientific knowledge of these purely intelligible facts of experience begins with an intellective intuition of these intelligible facts.

Still, it is to be noted that at times it may happen that no contingent truths, or only a few, can be known about a thing that we know intuitively, owing to the imperfec-

tion of the intuitive cognition (it being very imperfect or very obscure), or because of some impediment on the part of the object, or some other impediment.

[*Intuitive cognition of non-existing things*]

2. *Whether intuitive cognition can be had of an object that does not exist?*

It cannot: For it is a contradiction that there should be an act of seeing and nothing be seen; therefore it is a contradiction that there should be an act of seeing but the seen object not exist.

On the contrary: Vision is a non-relative quality distinct from the object; without contradiction, therefore, it can occur without an object.

On this question I lay down two conclusions. First: Intuitive cognition of a non-existent object is possible by the divine power. I prove this first by the article of faith 'I believe in God the Father almighty', which I understand in the following sense: Anything is to be attributed to the divine power, when it does not contain a manifest contradiction. But that this [i.e. cognition of a non-existent object] should be produced by the power of God, does not contain a contradiction; therefore, etc.

Again, on this article is based the famous maxim of the theologians: 'Whatever God can produce by means of secondary causes, He can directly produce and preserve without them'. From this maxim I argue thus. Every effect which God can produce by means of a secondary cause He can produce directly on His own account. God can produce intuitive sense cognition by means

of an object ; hence He can produce it directly on His own account.

Furthermore, every non-relative reality that differs in its place and its subject [of inherence] from another non-relative reality can still exist by virtue of the divine power when the other non-relative reality is destroyed. But seeing a star in the sky, whether by sense or by intellect, is such a reality ; therefore, etc.

You may object that according to this argument it follows that there could be an intuitive and beatific vision of God without His actual presence as an object actually present to the intellect ; which is false and erroneous. I answer that there is no logical connexion in the following way of arguing : 'Because God can make such an act of seeing without a created object (on which this act depends only as a secondary cause), therefore, there can be an intuitive and beatific vision of God without His actual presence as an object actually present to the intellect (an object on which this is dependent as its first cause)'. For though, according to the Doctors, God can make the proper effects of secondary causes without these secondary causes, nevertheless He cannot make any effect without its first cause. For this reason, just as it is not possible that a colour should, as efficient cause, cause itself to be seen in the eye unless it is actually present, so in like manner it is not possible that God should cause an act of seeing Him in the intellect unless His actual presence is given.

Second conclusion : So far as natural causes are in question, an intuitive cognition cannot be caused or preserved if the object does not exist. The reason is this. A real effect cannot be caused, or brought from nothing into being, by that which is nothing. Hence, if we are speaking of the natural mode of causation, it requires for its existence both a productive and a preservative cause.

You may object : 'If someone sees the sun and then

enters a dark room, it appears to him that he sees the sun in the same place and of the same size. Hence a sight of the sun remains, when the sun is absent ; and for the same reason would remain, even if it did not exist'. To this I answer : 'No sight of the sun does remain ; but there does remain a quality, viz. the light-impression in the eye, and it is this quality that is seen. And if the intellect formulates such a proposition as "Light is seen at the same place, etc." and gives its assent to it, it is deceived by this quality or impression which it sees'.

To the main argument I answer : It is a contradiction that an act of seeing should exist while that which is seen neither exists nor can exist in reality. Hence it is a contradiction that a chimera should be intuitively seen. But it is no contradiction that what is seen should be nothing actually existing outside its cause, provided only that it can exist in reality or has once been in the universe. And so it is in our case. It was thus that God from all eternity saw all things that could be made, and nevertheless they were then nothing.

[*The primacy of cognition of singular things*]

3. *Whether the singular is the first thing known, as regards the origin of cognition ?*

It is not the first thing known : for the universal is the first and proper object of the intellect ; and is, therefore, the first thing known, as regards the origin of cognition.

On the contrary : Both intellect and sense have the very same object ; but if we are speaking of the origin of cognition, a singular thing is the first object of the sense faculty ; therefore, etc.

Answer : We must first clarify the meaning of the question, and then answer it.

Concerning the first point we have to realise that here 'singular thing' does not mean everything that is numerically one ; for, in this sense, *everything* is singular. Instead we take 'singular thing' here for a thing which not only is numerically one, but in addition is not a natural or conventional sign belonging in common to many things signified. In this sense neither a written expression nor a concept nor a significant oral utterance, but only a thing which is not a common sign, is a singular thing.

Secondly, we should know that our question does not refer indiscriminately to any cognition of a singular thing. For in a sense every universal cognition is a cognition of a singular thing, since such a universal cognition gives us knowledge only of a singular thing or singular things. Our question rather refers to a proper and simple cognition of a singular thing.

On the second point : Granted that the question is taken to be about proper cognition of a singular thing, I maintain in the first place that a singular thing, taken in the above sense, is what is first known, in a cognition that is simple and proper to this singular thing.

This conclusion is proved in the following manner : What is first known by such cognition is an extra-mental thing which is not a sign ; but everything outside the mind is singular ; therefore, etc.

Furthermore, the object precedes the act which is proper to it and that comes first in order of origination ; but only a singular thing precedes such an act ; therefore, etc.

Secondly, I maintain that this cognition which is simple, proper to a singular thing, and the first to be acquired, is an intuitive cognition. That such a cognition is first, is clear ; for abstractive cognition of a singular thing presupposes an intuitive cognition of the same object, and not vice versa. The fact that it is proper to one singular thing is likewise clear ; for it is

immediately caused, or is of such a nature as to be so caused, by this singular thing ; it cannot naturally be caused by another singular thing, even of the same species.

Thirdly, I maintain that the abstractive cognition which is simple and comes first in order of origination is not proper to a singular thing, but is sometimes, indeed always, a cognition common to many. The first part of this thesis is shown thus : We have no proper and simple cognition of a singular thing, as long as we can get no specific knowledge of it. Now this is sometimes the case, for instance, when somebody, approaching from a distance, causes in me a sense-perception with the help of which I can judge only that what I see is an existent. In this case it is clear that my first abstractive cognition (first, that is, in order of origination) is the cognition of existence, and of nothing less general ; consequently it is not a specific concept nor a concept proper to a singular thing. The second part of the thesis is likewise clear. For no simple abstractive cognition is more a likeness of one singular thing than of another thing very similar to this thing, nor is such cognition caused by a thing or of such nature as to be caused by a thing ; therefore no such cognition is proper to a singular thing, but every such cognition is universal.

But here some doubts arise.

First : It seems that intuitive cognition is not proper knowledge. For any assigned intuitive cognition will have no more likeness to one singular thing than to another very similar one, and will represent the one as much as the other. Therefore it does not seem to be a cognition of one rather than the other.

Second doubt : If the first abstractive cognition is at times a cognition or concept of existence, as you hold in the instance of a man coming from afar, then the first intuitive cognition in such a case will also be cognition of existence in general, since it is impossible to have

several simple concepts of the same thing. Nevertheless, in the case of one coming from afar, I can have one look from which I judge that this is an existent, another from which I judge that this is an animal, a third one from which I judge that this is a man, and a fourth one from which I judge that this is Socrates. Yet these various looks are different in kind ; therefore, it is not possible that all of them are proper to the singular thing seen.

Third doubt : It seems that the first abstractive cognition is a proper one, especially when the object is sufficiently close, because by the first abstractive cognition I can recall the same thing as I saw before. But this could not happen, unless my abstractive cognition were proper to the thing.

Fourth doubt : According to what has been said it seems possible that the concept of a genus could be abstracted from one individual, let us say, the concept 'animal' ; as is clear from the case of one coming from a distance, when I see enough to judge that what I am seeing is an animal.

To the first doubt, I say that we have a cognition proper to one singular thing, not on account of a greater likeness to one than to another, but because this intuitive cognition is naturally caused only by the one and not by the other, and cannot be caused by the other.

If you say that it may be caused by God alone, I admit that this is true. Nevertheless, where created things are concerned, it is always of the nature of such a look to be caused by one object and not by another ; and if it is naturally caused, it can be caused only by the one object and not by the other. Therefore the reason why intuitive cognition, rather than the first abstractive cognition, is said to be proper to the singular thing, is not similarity, but only causality ; no other reason can be assigned.

To the second doubt, I say that sometimes such looks are of the same species and differ only as the more or

less perfect differ within the same species. For instance, if we saw something composed only of homogeneous parts, where no more than one accident, let us say whiteness, is visible, then as this thing approaches, our vision becomes stronger and clearer, and accordingly different judgments are possible, viz. that what we see is an existent, or a body, or a colour, or whiteness, etc.

You object, perhaps : 'Things which cannot cause the same specific effect differ specifically. But clear and obscure vision cannot ; therefore, etc.' I answer : 'If certain causes, no matter how much they are intensified and increased, cannot cause an effect specifically the same, then they are specifically different ; otherwise not. But this vision, if increased and intensified, can produce every effect that clear vision can. Consequently obscure and clear vision are of the same kind'. Sometimes, however, clear and obscure vision are specifically different : for instance, if different objects are seen, as when something like a many-coloured shield is viewed from a greater or lesser distance. But these views are not of the same object but of different objects.

To the third doubt, I say that when I see something, I do have a proper abstractive cognition ; only it will not be a simple cognition, but one composed of simple cognitions. This composite knowledge is the basis of recollection ; for I recall Socrates because I have seen him with such a figure, colour, height and width, and in such a place, and by putting these together I recall having once seen Socrates. But if you leave out all simple concepts except one, you cannot by means of this have memory relating to Socrates rather than any other man who is very similar to him ; I can well recall having seen someone, but whether it was Socrates or Plato, I do not know. Therefore a simple abstractive cognition is not proper to a singular thing ; however, a composite cognition may well be proper to one.

To the fourth doubt I answer : 'The concept of a

genus is never abstracted from only one individual'. Concerning the instance of a man coming from a distance, I say that I judge him to be an animal, since I am already in the possession of the concept 'animal', a concept that is a genus ; and therefore, by means of this concept I am led to recognition. Hence, if I did not already possess the concept of the genus 'animal', I would judge only that this which is seen is something.

If you ask, which abstractive cognition is first obtained by the help of intuitive cognition, I answer : 'Sometimes only the concept 'existent', sometimes the concept of a genus, sometimes the concept of the ultimate species ; but it all depends on whether the object is more or less remote'. However, we always get an impression of the concept 'existent', because if the object is sufficiently close, a concept of the species and the concept 'existent' are simultaneously caused by the extra-mental singular thing.

To the principal objection I answer : A universal is the first object in the order of adequacy [i.e. of adequacy as object of the intellect], but not in the order of origin of cognition.

The problem of universals

4. A general knowledge of terms is not sufficient for the logician ; he must also know terms more in detail. Therefore, having dealt with the general divisions of terms [in the previous chapters of the *Summa logicae*], we must turn to some of the things that come under members of this division.

First we have to treat terms of second intention [1] ; secondly, terms of first intention. It has been said that terms of second intention are those like 'universal', 'genus', 'species', etc. Hence we must say something about those which are set up as the five predicables. But first we must speak of the general term 'universal,'

[1] See Introduction above, p. xxxiii

which is predicated of every universal, and of the term 'singular', which is opposed to it.

First we must realise that 'singular' is taken in two senses. In one sense the name 'singular' signifies whatever is one thing and not several. If it is so understood, then those who hold that a universal is a certain quality of the mind predicable of many things (but standing for these many things, not for itself) have to say that every universal is truly and really a singular. For just as every word, no matter how common it may be by convention, is truly and really singular and numerically one, since it is one thing and not many, so likewise the mental content that signifies several things outside is truly and really singular and numerically one, since it is one thing and not many things, though it signifies several things.

In another sense the name 'singular' is taken for that which is one and not several things and is not of such a nature as to be the sign of several things. If 'singular' is understood in this sense, then no universal is singular, since every universal is of such a nature as to be a sign of, and to be predicated of, several things. Hence, if a universal is that which is not numerically one—a meaning attributed by many to 'universal'—then I say that nothing is a universal, unless perhaps you wish to abuse this word by saying that a population is a universal, since it is not one but many. But that would be childish.

Hence we have to say that every universal is one singular thing. Therefore nothing is universal except by signification, by being a sign of several things. This is what Avicenna says in the fifth book of the *Metaphysics*: 'One form in the intellect has reference to a multitude, and in this sense it is a universal, since the universal is a content in the intellect which is equally related to anything you take'. And later on: 'This form, though universal in reference to individuals, is nevertheless individual in reference to the particular mind in which

it is impressed, for it is one of the forms in the intellect'. He wishes to say here that the universal is one particular content of the mind itself, of such a nature as to be predicated of several things ; therefore, it is by the very fact that it is of such a nature as to be predicated of several things (standing not for itself, but for those many things), that it is called a 'universal'. By the fact, however, that it is one form really existing in the intellect, it is called a 'singular'. Hence 'singular' in the first sense is predicated of the universal, but not 'singular' in the second sense. In like manner, we say that the sun is a universal cause, and nevertheless it is in truth a particular and singular thing, and consequently a singular and particular cause. For the sun is called 'universal cause', because it is the cause of many things, namely of all that can be generated and corrupted here below. It is, on the other hand, called 'particular cause', because it is one cause and not several causes. Likewise the content of the soul is called 'universal', because it is a sign predicable of many ; on the other hand, it is called 'singular', because it is one thing and not many things.

It must, however, be understood that there are two sorts of universal. There is one sort which is naturally universal ; in other words, is a sign naturally predicable of many things, in much the same way as smoke naturally signifies fire, or a groan the pain of a sick man, or laughter an inner joy. Such a universal is nothing other than a content of the mind ; and therefore no substance outside the mind and no accident outside the mind is such a universal. It is only of such a universal that I shall speak in the chapters that follow.

The other sort of universal is so by convention. In this way, an uttered word, which is really a single quality, is universal ; for it is a conventional sign meant to signify many things. Therefore, just as the word is said to be common, so it can be said to be universal. But it is not so by nature, only by convention.

A universal is not a thing outside the mind

5. Since it is not sufficient merely to assert this without proving it by manifest reasoning, I shall advance a few reasons for what has been said above and I shall confirm by arguments from authority.

That a universal is not a substance existing outside the mind can in the first place be evidently proved as follows : No universal is a substance that is single and numerically one. For if that were supposed, it would follow that Socrates is a universal, since there is no stronger reason for one singular substance to be a universal than for another ; therefore no singular substance is a universal, but every substance is numerically one and singular. For everything is either one thing and not many, or it is many things. If it is one and not many, it is numerically one. If, however, a substance is many things, it is either many singular things or many universal things. On the first supposition it follows that a substance would be several singular substances ; for the same reason, then, some substance would be several men ; and thus, although a universal would be distinguished from one particular thing, it would yet not be distinguished from particular things. If, however, a substance were several universal things, let us take one of these universal things and ask 'Is this one thing and not many, or is it many things ?' If the first alternative is granted, then it follows that it is singular ; if the second is granted, we have to ask again 'Is it many singular or many universal things ?' And thus either this will go on *in infinitum*, or we must take the stand that no substance is universal in such a way that it is not singular. Hence, the only remaining alternative is that no substance is universal.

Furthermore, if a universal were one substance exist-

ing in singular things and distinct from them, it would follow that it could exist apart from them ; for every thing naturally prior to another thing can exist apart from it by the power of God. But this consequence is absurd.

Furthermore, if that opinion were true, no individual could be created, but something of the individual would pre-exist ; for it would not get its entire being from nothing, if the universal in it has existed before in another individual. For the same reason it would follow that God could not annihilate one individual of a substance, if He did not destroy the other individuals. For if He annihilated one individual, He would destroy the whole of the essence of the individual, and consequently he would destroy that universal which is in it and in others ; consequently, the other individuals do not remain, since they cannot remain without a part of themselves, such as the universal is held to be.

Furthermore, we could not assume such a universal to be something entirely extrinsic to the essence of an individual ; therefore, it would be of the essence of the individual, and consequently the individual would be composed of universals ; and thus the individual would not be more singular than universal.

Furthermore, it follows that something of the essence of Christ would be miserable and damned ; since that common nature which really exists in Christ, really exists in Judas also and is damned. Therefore, something is both in Christ and in one who is damned, namely in Judas. That, however, is absurd.

Still other reasons could be advanced which I pass over for the sake of brevity.

The same conclusion I will now confirm by authorities. . . .

From these and many other texts it is clear that a universal is a mental content of such nature as to be predicated of many things. This can also be confirmed

by reason. All agree that every universal is predicable of things. But only a mental content or conventional sign, not a substance, is of such nature as to be predicated. Consequently, only a mental content or a conventional sign is a universal. However, at present I am not using 'universal' for a conventional sign, but for that which is naturally a universal. Moreover, it is clear that no substance is of such nature as to be predicated ; for if that were true, it would follow that a proposition would be composed of particular substances, and consequently that the subject could be in Rome and the predicate in England. That is absurd.

Furthermore, a proposition is either in the mind or in spoken or written words. Consequently, its parts are either in the mind or in speech or in writing. Such things, however, are not particular substances. Therefore, it is established that no proposition can be composed of substances ; but a proposition is composed of universals ; hence universals are in no way substances.

Scotus's opinion on universals and its refutation

6. Although it is clear to many that a universal is not a substance existing outside the mind in individuals and really distinct from them, still some are of the opinion that a universal does in some manner exist outside the mind in individuals, although not really but only formally distinct from them. Hence they say that in Socrates there is human nature, which is ' contracted to ' Socrates by an individual difference which is not really but only formally distinct from this nature. Hence the nature and the individual difference are not two things, although the one is not formally the other.

However, this opinion appears to me wholly untenable. Proof : In creatures no extra-mental distinction of any kind is possible except where distinct things

exist. If, therefore, some kind of distinction exists between this nature and this difference, it is necessary that they be really distinct things. I prove the minor premise in syllogistic form as follows : This nature is not formally distinct from itself ; this individual difference is formally distinct from this nature ; therefore this individual difference is not this nature.

Furthermore, the same thing is not common and proper ; however, according to them, the individual is proper, but the universal is common ; therefore the individual difference is not common ; consequently no universal is the same thing as the individual difference.

Furthermore, opposites cannot belong to the same created thing ; 'common' and 'proper' are opposites ; therefore the same thing is not common and proper, as would follow if individual difference and common nature were the same thing.

Furthermore, if common nature were really the same as the individual difference, then there would be in reality as many common natures as there are individual differences, and hence none of them would be common, but each one would be proper to the difference with which it is really identical.

Furthermore, everything which is distinguished from something else is distinguished either of itself or by some thing intrinsic to itself ; but the humanity of Plato is one thing and the humanity of Socrates another ; therefore they are distinguished of themselves ; therefore *not* by having differences added to them.

Furthermore, according to Aristotle, things specifically different are also numerically different ; but the nature of a man and the nature of a donkey are of themselves specifically different ; therefore, of themselves, they are numerically different ; consequently, each of these natures is on its own account numerically one.

Furthermore, what no power can cause to belong to several things no power can make predicable of several

things ; now no power can make such a nature, if it is really the same as the individual difference, belong to several things, because in no manner can [something really identified with one individual] belong to another individual ; therefore, no power can make it predicable of several things, and consequently no power can make it universal.

Furthermore, I take this individual difference and the nature that it 'contracts' and ask 'Is the distinction greater or less than between two individuals ?' It is not greater, since they do not differ really ; whereas individuals do differ really. Nor is it less, for then the two things said to be distinct would fall under the same concept, just as two individuals fall under the same concept. Consequently, if the one is numerically one on its own account, the other will also be so on its own account.

Furthermore, I ask 'Is the nature the individual difference, or is it not ?' If it is, then I shall argue in syllogistic form as follows : This individual difference is proper and not common, this individual difference is the nature ; consequently the nature is proper and not common, which is what we intended to prove. Likewise I argue in syllogistic form as follows : This individual difference is not formally distinct from this individual difference ; this individual difference is the nature ; therefore, this nature is not formally distinct from the individual difference. If, however, the other alternative is granted, namely 'This individual difference is not the nature', our thesis is admitted, since this therefore follows : The individual difference is not the nature, therefore the individual difference is not really the nature. For from the opposite of the consequent the opposite of the antecedent follows, by this argument : The individual difference is really the nature, therefore the individual difference is the nature. The inference is clear, since it is a valid inference to argue from a determinable as qualified by a determination which does not

cancel or diminish it,[1] to the determinable without the qualification. 'Really', however, is not a cancelling or diminishing determination, hence this follows : The individual difference is really the nature, therefore the individual difference is the nature.

Therefore it must be said that in creatures there is no such formal distinction ; but whatever in creatures is distinct, is really distinct, and constitutes a distinct thing, if each of the two things distinguished is truly a thing. Just as in creatures we must never deny the validity of such modes of arguing as 'This is *A*, this is *B*, consequently a *B* is *A*', or 'This is not *A*, this is *B*, consequently a *B* is not *A*', so also as regards creatures whenever contradictory predicates are true of certain things, we must not deny that the things are distinct ; unless of course some determination or some syncategorematic term should be what causes this to be true, as should not be assumed in our present case.

Therefore we must say with the Philosopher that in a particular substance nothing whatsoever is substantial except the particular form and the particular matter or a compound of matter and form. Hence we must not imagine that in Socrates we have human nature or humanity distinct in any way from Socrates, to which is added an individual difference that 'contracts' this nature. But any imaginable substantial reality that exists in Socrates is either the particular matter or the particular form or a compound of the two. Therefore every essence and quiddity and everything substantial, if it really exists outside the mind, is either simply and absolutely matter or form, or a compound of them, or it is a separate immaterial substance, according to the teachings of the Peripatetics.

[1] [This saving clause means that e.g., we cannot infer validly : A dead man is in animate, *ergo* some man is inanimate.—Tr.]

[*A universal is a thought-object* [1]]

7. Another theory [different from those opinions concerning the nature of universals previously criticised by Ockham] could be advanced. I maintain that a universal is not something real that exists in a subject [of inherence], either inside or outside the mind, but that it has being only as a thought-object in the mind. It is a kind of mental picture which as a thought-object has a being similar to that which the thing outside the mind has in its real existence. What I mean is this : The intellect, seeing a thing outside the mind, forms in the mind a picture resembling it, in such a way that if the mind had the power to produce as it has the power to picture, it would produce by this act a real outside thing which would be only numerically distinct from the former real thing. The case would be similar, analogously speaking, to the activity of an artist. For just as the artist who sees a house or building outside the mind first pictures in the mind a similar house and later produces a similar house in reality which is only numerically distinct from the first, so in our case the picture in the mind that we get from seeing something outside would act as a pattern. For just as the imagined house would be a pattern for the architect, if he who imagines it had the power to produce it in reality, so likewise the other picture would be a pattern for him who forms it. And this can be called a universal, because it is a pattern and relates indifferently to all the singular things outside the mind. Because of the similarity between its being as a thought-object and the being of like things outside the mind, it can stand for such things. And in this way a universal is not the result of generation, but of abstraction, which is only a kind of mental picturing.

[1] Ockham's first opinion, later abandoned

I shall first show that something exists in the mind whose being is that of an object of thought only, without inhering in the mind as an independent subject.

This is clear from the following : According to the philosophers, existence is primarily divided into existence in the mind and existence outside the mind, the latter being subdivided into the ten categories. If this is admitted, then I ask 'What is understood here by "existence in the mind"?' It means either existence as a thought-object, and then we have our intended thesis, or it means existence as in a subject. The latter, however, is not possible ; for, whatever exists truly in the mind as a subject, is contained under existence that is divided into the ten categories, since it falls under quality. For an act of intellect, and indeed in general every accident or form of the mind, is a true quality, like heat or whiteness, and hence does not fall under the division of existence that is set over against existence in the ten categories. [Consequently the main distinction of the philosophers would be futile.]

Furthermore, fictions have being in the mind, but they do not exist independently, because in that case they would be real things and so a chimera and a goat-stag and so on would be real things. So some things exist only as thought-objects.

Likewise, propositions, syllogisms, and other similar objects of logic do not exist independently ; therefore they exist only as thought-objects, so that their being consists in being known. Consequently, there are beings which exist only as thought-objects.

Again, works of art do not seem to inhere in the mind of the craftsman as independent subjects any more than the creatures did in the divine mind before creation.

Likewise, conceptual relations are commonly admitted by the [scholastic] doctors. If this is conceded, then I ask 'Do they exist only in a subject ?' In that case they will be genuine things and real relations. Or do they

exist only as thought-objects? In that case we have our intended thesis.

Again, according to those who think differently, the term 'being' means a univocal concept, and nevertheless does not mean a distinct reality.

Likewise, practically all men distinguish second intentions from first intentions, and they do not call the second intentions real qualities of the mind. Since they are not in reality outside the mind, they can only exist as thought-objects in the mind.

Secondly, I maintain that this mental picture is what is primarily and immediately meant by the concept 'universal', and has the nature of a thought-object, and is that which is the immediate term of an act of intellection having no singular object. This mental picture, in the manner of being that a thought-object has, is just whatever the corresponding singular is, in the manner of being proper to a subject; and so by its very nature it can stand for the singulars of which it is in a way a likeness. . . .

I maintain, therefore, that just as a spoken word is universal and is a genus or a species, but only by convention, in the same way the concept thus mentally fashioned and abstracted from singular things previously known is universal by its nature. . . .

[*A universal is an act of the intellect* [1]]

8. There could be another opinion, according to which a concept is the same as the act of knowing. This opinion appears to me to be the more probable one among all the opinions which assume that these concepts really exist in the soul as a subject, like true qualities of the soul; so I shall first explain this opinion in its more probable form.

I maintain, then, that somebody wishing to hold this

[1] Second opinion, finally held by Ockham

opinion may assume that the intellect apprehending a singular thing performs within itself a cognition of this singular only. This cognition is called a state of mind, and it is capable of standing for this singular thing by its very nature. Hence, just as the spoken word 'Socrates' stands by convention for the thing it signifies, so that one who hears this utterance, 'Socrates is running', does not conceive that this word, 'Socrates', which he hears, is running, but rather that the thing signified by this word is running ; so likewise one who knew or understood that something was affirmatively predicated of this cognition of a singular thing would not think that the cognition was such and such, but would conceive that the thing to which the cognition refers is such and such. Hence, just as the spoken word stands by convention for a thing, so the act of intellect, by its very nature, and without any convention, stands for the thing to which it refers.

Beside this intellectual grasp of a singular thing the intellect also forms other acts which do not refer more to one thing than to another. For instance, just as the spoken word 'man' does not signify Socrates more than Plato, and hence does not stand more for Socrates than Plato, so it would be with an act of intellect which does not relate to Socrates any more than to Plato or any other man. And in like manner there would be also a knowledge whereby this animal is not more known than that animal ; and so with other notions.

To sum up : The mind's own intellectual acts are called states of mind. By their nature they stand for the actual things outside the mind or for other things in the mind, just as the spoken words stand for them by convention. . . .

. . . By such a common or confused intellection, singular things outside the mind are known. For instance, to say that we have a confused intellection of man, means that we have a cognition by which we do not understand one man rather than another, but that by such a cognition we have cognition of a man

rather than a donkey. And this amounts to saying that such a cognition, by some kind of assimilation, bears a greater resemblance to a man than to a donkey, but does not resemble one man rather than another. In consequence of the aforesaid, it seems necessary to say that an infinity of objects can be known by such a confused cognition. Still this seems no more untenable than that an infinity of objects can be liked or desired by the same act of liking or desiring. Yet the latter does not seem to be untenable. For a man may like all the parts of a continuous thing, which are infinite in number, or he may desire that all these parts remain in existence. Now in such a case, what was desired would simply be a part of the continuous thing, but not one part rather than another ; therefore all parts must be desired ; these parts, however, are infinite in number. Likewise, somebody can desire the existence of all men who can exist. Now these are infinite in number, since an infinity of men can be generated.

And so it could be said that one and the same cognition refers to an infinite number of singulars without being a cognition proper to any one of them, and this is so because of some specific likeness between these individuals that does not exist between others. However, no singular thing can be distinguished from another by such a cognition.

III

LOGICAL PROBLEMS

Sources:

1	*Summa totius logicae,* I, c. i	51
2	*Summa totius logicae,* I, c. ii	53
3	*Summa totius logicae,* I, c. iv	55
4	*Summa totius logicae,* I, c. x	56
5	*Summa totius logicae,* I, c. xi	60
6	*Summa totius logicae,* I, c. xiii	63

On terms [in general]

1. All those who deal with logic try to establish that arguments are composed of propositions, and propositions of terms. Hence a term is simply one of the parts into which a proposition is directly divided. Aristotle defines 'terms' in the first book of the *Prior Analytics* by saying : 'I call a term that into which a proposition is resolved (viz. the predicate, or that of which something is predicated) when it is affirmed or denied that something *is* or *is not* something'.

Although every term is or can be a part of a proposition, yet not all terms are of the same kind. Hence to obtain a perfect knowledge of them, we must first get acquainted with some distinctions between terms.

According to Boethius in the first book of the *De interpretatione*, language is threefold : written, spoken and conceptual. The last named exists only in the intellect. Correspondingly the term is threefold, viz. the written, the spoken and the conceptual term. A written term is part of a proposition written on some material, and is or can be seen with the bodily eye. A spoken term is part of a proposition uttered with the mouth and able to be heard with the bodily ear. A conceptual term is a mental content or impression which naturally possesses signification or consignification, and which is suited to be part of a mental proposition and to stand for that which it signifies.

These conceptual terms and the propositions formed by them are those mental words which St Augustine says in the fifteenth book of *De Trinitate* do not belong to any language ; they remain only in the mind and cannot be uttered exteriorly. Nevertheless vocal words which are signs subordinated to these can be exteriorly uttered.

I say vocal words are signs subordinated to mental concepts or contents. By this I do not mean that if the word 'sign' is taken in its proper meaning, spoken words are properly and primarily signs of mental concepts ; I rather mean that words are applied in order to signify the very same things which are signified by mental concepts. Hence the concept signifies something primarily and naturally, whilst the word signifies the same thing secondarily. This holds to such an extent that a word conventionally signifying an object signified by a mental concept would immediately, and without any new convention, come to signify another object, simply because the concept came to signify another object. This is what is meant by the Philosopher when he says 'Words are signs of the impressions in the soul'. Boethius also has the same in mind when he says that words signify concepts. Generally speaking, all authors who maintain that all words signify, or are signs of, impressions in the mind, only mean that words are signs which signify secondarily what the impressions of the mind import primarily. Nevertheless, some words may also primarily signify impressions of the mind, or concepts ; these may in turn signify secondarily other intentions of the mind, as will be shown later.

What has been said about words in regard to impressions or contents or concepts holds likewise analogously for written words in reference to spoken words.

Certain differences are to be found among these [three] sorts of terms. One is the following : A concept or mental impression signifies naturally whatever it does signify ; a spoken or written term, on the other hand, does not signify anything except by free convention.

From this follows another difference. We can change the designation of the spoken or written term at will, but the designation of the conceptual term is not to be changed at anybody's will.

For the sake of quibblers, however, it should be noted that 'sign' can assume two meanings. In one sense it means anything which, when apprehended, makes us know something else ; but it does not make us know something for the first time, as has been shown elsewhere ; it only makes us know something actually which we already know habitually. In this manner, a word is a natural sign, and indeed any effect is a sign at least of its cause. And in this way also a barrel-hoop signifies the wine in the inn. Here, however, I am not speaking of 'sign' in such a general meaning. In another sense, 'sign' means that which makes us know something else, and either is able itself to stand for it, or can be added in a proposition to what is able to stand for something—such are the syncategorematic words and the verbs and other parts of a proposition which have no definite signification—or is such as to be composed of things of this sort, e.g. a sentence. If 'sign' is taken in this sense, then a word is not a natural sign of anything.

The various meanings of 'term'

2. The noun 'term' has three meanings. In one sense, 'term' is the name of everything that can be the copula or one of the extremes in a categorical proposition, namely the subject or the predicate, or any qualification of the subject or predicate or of the verb. In this sense, even a proposition can be a term, as it can be part of a proposition. For it is true to say : ' "Man is an animal" is a true proposition'. In this case, the entire proposition 'Man is an animal' is the subject and 'true proposition' is the predicate.

In another sense, the noun 'term' is contrasted with a sentence. Then, every non-complex expression is called a 'term'. (It was in this sense that I used 'term' in the preceding chapter.)

Thirdly, 'term' in its precise meaning designates everything that in its significative function can be either subject or predicate of a proposition. In this sense a verb or a conjunction or an adverb or a proposition or an interjection is not a term. Even many nouns will not be terms, viz. the syncategorematic nouns[1]; although they may be extremes of a proposition when taken in material or simple *suppositio*, nevertheless, when taken in their significative function, they cannot be extremes of a proposition. For instance, the sentence ' "Reads" is a verb' makes sense and is true if the verb 'reads' is taken in material supposition.[2] If, however, it were taken in its significative function, the sentence would be unintelligible. The same holds for the following propositions : ' "All" is a noun', ' "once" is an adverb', ' "If" is a conjunction', ' "From" is a preposition'. It is in this [last] sense that the Philosopher understands 'term' when he defines it in the first book of the *Prior Analytics*.

Not only can one simple expression be a term in this sense, but also a composite of two such simple expressions, viz. of an adjective and a substantive, and of a participle and an adverb, or of a preposition with its grammatical case, since such a compound, too, can be subject or predicate of a proposition. For in the proposition 'A white man is a man', neither 'man' nor 'white' is the subject, but only the whole expression 'white man'. Likewise in the proposition '[The one] running swiftly is a man', neither '[the one] running' nor 'swiftly' is the subject but the entire expression '[the one] running swiftly'.

Yet not only the noun in the nominative case may be a term, but also a noun in another case, because such a noun can be subject and also predicate of a proposition.

[1] Ockham refers to such words as 'all' (*omnis*) which would be classed under the heading of 'nouns' in medieval grammar (as *nomina adiectiva*).

[2] Lest it seem that Ockham labours the point of this paragraph unduly, the reader should recollect that in those days there were no quotation marks.

However, a noun which is not in the nominative case cannot be subject in reference to *any* verb. For it is not correct to say 'The man's sees a donkey', although it is correct to say, 'The man's is a donkey'. How a noun in an oblique case may be subject and which verbs can or cannot have such a subject are questions for the grammarian to decide, for his task it is to study the constructions of words.

Division into Categorematic and Syncategorematic terms

3. There is still another distinction holding both between vocal, and between mental, terms. Some are categorematic, others syncategorematic, terms. Categorematic terms have a definite and fixed signification, as for instance the word 'man' (since it signifies all men) and the word 'animal' (since it signifies all animals), and the word 'whiteness' (since it signifies all occurrences of whiteness). Syncategorematic terms, on the other hand, as 'every', 'none', 'some', 'whole', 'besides', 'only', 'in so far as', and the like, do not have a fixed and definite meaning, nor do they signify things distinct from the things signified by categorematic terms. Rather, just as, in the system of numbers, zero standing alone does not signify anything, but when added to another number gives it a new signification ; so likewise a syncategorematic term does not signify anything, properly speaking ; but when added to another term, it makes it signify something or makes it stand for some thing or things in a definite manner, or has some other function with regard to a categorematic term. Thus the syncategorematic word 'every' does not signify any fixed thing, but when added to 'man' it makes the term 'man' stand for all men actually, or with confused distributive *suppositio*. When added, however, to 'stone', it makes the term 'stone' stand for all stones ; and when added to 'whiteness', it makes it stand for all occurrences of

whiteness. As with this syncategorematic word 'every', so with others, although the different syncategorematic words have different tasks, as will be shown further below.

Should some quibbler say that the word 'every' is significant and consequently it signifies something, we answer that it is called significant, not because it signifies something determinately but only because it makes something else signify or represent or stand for something, as we explained before. And just as we say that the noun [1] 'every' does not signify anything in a determinate and limited way, to use Boethius's way of speaking, we must maintain the same of all syncategorematic words and all conjunctions and prepositions.

It is, however, different with some adverbs, because certain of them determinately signify the same things which categorematic words signify, though they do so in a different mode of signification.

On the difference between connotative and absolute terms

4. Having discussed concrete and abstract terms, we must now speak of another division of names frequently used by the teachers of philosophy.

Certain names are purely absolute, others are connotative. Purely absolute names are those which do not signify one thing principally, and another or even the same thing secondarily ; but everything alike that is signified by the same absolute name, is signified primarily. For instance, the name 'animal' just signifies oxen, donkeys and also all other animals ; it does not signify one thing primarily and another secondarily, in such a way that something has to be expressed in the nominative case and something else in an oblique case ; nor is there any need to have nouns in different cases, or participles, in the definitions which express the meaning of 'animal'. On the contrary, properly speaking, such names have no definitions expressing the meaning of the

[1] *Cf.* p. 54, *n.* 1

term. For, strictly speaking, a name that has a definition expressing the meaning of the name, has only one such definition, and consequently no two sentences which express the meaning of such terms are so different in their parts that some part in the first sentence signifies something that is not signified by any corresponding part in the second. The meaning of absolute names, however, may be explained in some manner by several sentences, whose respective parts do not signify the same things. Therefore, properly speaking, none of these is a definition explaining the meaning of the name. For instance, 'angel' is a purely absolute name, at least if it means the substance and not the office of an angel. This name has not some one definition expressing the meaning of the term. For someone may explain the signification of the name by saying : 'I understand by "angel" a substance which exists without matter' ; another thus : 'An angel is an intellectual and incorruptible substance' ; again another thus : 'An angel is a simple substance which does not enter into any composition with anything else'. And what is signified by this name is explained just as well by the one as by the other definition. Nevertheless, not every term in each of these sentences signifies something that is signified in the same manner by a similar term in each of the other sentences. For this reason, none is, strictly speaking, a definition expressing the meaning of the name. And so it is with many names that are purely absolute. Strictly speaking, none of them has a definition expressing the meaning of the names. Names like the following are of this kind : 'man', 'animal', 'goat', 'stone', 'tree', 'fire', 'earth', 'water', 'sky', 'whiteness', 'blackness', 'heat', 'sweetness', 'odour', 'taste', and so on.

A connotative name, however, is that which signifies something primarily and something else secondarily. Such a name has, properly speaking, a definition

expressing the meaning of the name. In such a definition it is often necessary to put one of its terms in the nominative case and something else in an oblique case. This holds, for instance, for the name 'white'. For it has a definition expressing the meaning of the name in which one expression is put in the nominative case, and another in an oblique case. When you ask, therefore, 'What does the name "white" signify?' you will answer: 'It signifies the same as the entire phrase "Something that is qualified by whiteness", or "Something that has whiteness".' It is manifest that one part of this phrase is put in the nominative case and another in the oblique case. Sometimes it may happen that a verb appears in the definition expressing the meaning of the name. If, for instance, it is asked 'What does the name "cause" signify?' it can be answered that it means the same as the phrase 'Something whose existence is followed by the existence of something else', or 'Something that can produce something else', or the like.

Such connotative names include all the concrete names of the first kind, mentioned in Chapter V, because such concrete names signify one thing in the nominative case and something else in the oblique case; that is to say, in the definition expressing the meaning of the name, one term signifying one thing must be put in the nominative case, and another term signifying another thing must be put in the oblique case. That becomes evident as regards all such names as 'just', 'white', 'animated', 'human' and the like.

Also to this type belong all relative names. For their definition has to contain distinct parts which either signify the same thing in different ways, or signify distinct things; this is evident as regards the name 'similar'. For if 'similar' is defined, we have to say 'The similar is something that has such a quality as another thing has', or some such definition. However, it does not matter which examples we take.

From this it becomes clear that the common name 'connotative' is a higher genus than the name 'relative', at least if we take the common noun 'connotative' in its broadest sense. For such names include all names pertaining to the genus of quantity, according to those who maintain that quantity is not a different thing from substance and quality. Thus, for them, 'body' has to be considered a connotative name. Hence, according to them, it must be said that a body is nothing else but a thing which has part distant from part in length, breadth and height, and a continuous and permanent quantity is a thing which has part distant from part. This, then, would be a definition expressing the meaning of the name. In consequence, these people have also to maintain that 'figure' or 'shape', 'curvature', 'straightness', 'length', 'height', and the like are connotative names. Further, those who maintain that everything is either a substance or a quality, have to suppose also that all terms contained in the categories other than substance and quality are connotative names, and also some of the genus quality are connotative names, as will be shown later on.

To this group of names belong also such terms as 'true', 'good', 'one', 'potency', 'act', 'intellect', 'intelligible', 'will', 'willable' and the like. The word 'intellect', for instance, has the meaning: 'Intellect is soul able to understand'. Thus the soul is signified by the nominative case and the act of understanding by the rest of the phrase. The name 'intelligible' is also a connotative term. It signifies the intellect, both in the nominative and in the oblique case, since its definition is this: 'The intelligible is something that can be apprehended by the intellect'. In this definition the intellect is signified by the name 'something', and also by the oblique case 'by

the intellect'. The same must be said of 'true' and 'good'; for 'true', which is convertible or co-extensive with 'being', signifies the same as 'intelligible'. Likewise 'good', which is co-extensive with 'being', signifies the same as the phrase 'Something which can be willed and loved according to right reason'.

On names of first and second imposition

5. We have thus given the divisions that apply both to terms which signify naturally and to those which are made by convention; we have now to say something about certain divisions which concern only terms made by convention.

A first division is this: Some of the conventional names are names of first imposition and some are names of second imposition. Names of second imposition are names which are applied to signify conventional signs, and also what goes with such signs, but only as long as they are signs.

But the general term 'name of second imposition' can be taken in two senses; one broad, the other strict. In a broad sense a name of second imposition is one that signifies utterances conventionally used, but only as long as they have this conventional use, whether or not such a name be also shared by mental contents, which are natural signs. Such names are 'noun', 'pronoun', 'verb', 'conjunction', 'case', 'number', 'tense' and the like, when used as the grammarian understands them. These names are called names of names, because they are applied only to signify parts of speech, and only as long as these are significative. For names which are predicated of words both when they are significant and when they are not are not called names of second imposition.

Hence such names as 'quality', 'spoken,' 'utterance' and the like, are not names of second imposition, though they signify conventional utterances, since they would signify them even if they were not significant as they now are. But 'noun' is a name of second imposition, since neither the word 'man' nor any other word was a noun before it was employed to signify. Likewise 'man's' was of no case, before it was used to signify what it does. The same holds good for the other words of this kind.

In the strict sense, however, 'name of the second imposition' is that which signifies only a conventional sign, and therefore does not refer to mental contents, which are natural signs. Such names are 'figure', 'conjugation' and the like. All other names that are not names of second imposition in one or the other way, are called names of first imposition.

'Name of first imposition', however, can be taken in two senses. In a broad sense all names not of second imposition are names of first imposition. Thus all such syncategorematic signs as 'every', 'none', 'some', 'any' and the like, are names of first imposition. In a strict sense, however, only categorematic names not of second imposition are called names of first imposition, and not syncategorematic names.[1]

Names of first imposition, in the strict sense, are of two classes. Some are names of first intention, others of second intention. Names of second intention are those nouns which are used precisely to signify mental con-

[1] Or nouns. *Cf.* p. 54 *n.* 1

cepts, which are natural signs, and also other conventional signs, or what goes with such signs. All the following are of this kind : 'genus', 'species', 'universal', 'predicable' and the like. For such names signify only mental contents, which are natural signs, or conventional signs.

Hence it can be said that this common term, 'name of second intention', can be taken strictly or broadly. Broadly speaking, that is said to be a name of second intention which signifies mental contents that are natural signs, whether or not it also signifies conventional signs for just such time as they function as signs. In this sense some names of first imposition and second intention are also names of second imposition. Strictly speaking, however, that only is called a name of second intention which precisely signifies mental contents that are natural signs. In this sense no name of second intention is a name of first imposition.

Names of first intention, on the other hand, are all names that differ from the former ; that is, they signify some things which neither are signs nor go with such signs, as for instance, 'man', 'animal', 'Socrates', 'Plato', 'whiteness', 'white', 'true', 'good' and the like. Some signify precisely things that are not signs able to stand for other things ; some signify such signs and other things as well.

From all this it may be gathered that certain names precisely signify conventional signs, but only as long as they are signs ; some signify both natural and conventional signs ; some, however, signify only those things which are not such signs, which are parts of propositions ; some indifferently signify both things which are not parts of propositions or speech, and also such signs ; of this kind are the following names : 'thing', 'being', 'something', 'one' and the like.

Univocal, equivocal and denominative terms

6. The next thing to be dealt with is the division of conventional terms into equivocal, univocal and denominative terms. Although Aristotle in the *Categories* deals with equivocal and univocal and denominative terms, nevertheless at present I intend to treat only univocal and equivocal terms, since I have spoken about denominative terms before.

First it must be known that only a spoken word or a conventional sign is an equivocal or univocal term ; therefore a mental content or concept is, strictly speaking, neither equivocal nor univocal.

That word is equivocal which, although it signifies several things, still is not a sign subordinated to one concept, but one sign subordinated to several concepts or mental contents. This is what Aristotle means when he says that the name is common and the essential meaning is diverse. That is, the concepts or mental contents, for example descriptions or definitions and even simple concepts, are diverse, though they are referred to by one word. This is manifestly clear as regards an expression found in different languages ; for in one language it is employed to signify the same thing as is signified by a certain concept, and in another language it is applied to that which is signified by a different concept. Thus the same word is subordinated in its significance to several concepts or mental impressions.

Such equivocal terms are of two sorts. There is the term that is equivocal by chance, namely when a word is subordinated to several concepts and is subordinated to one just as if it were not subordinated to another, and thus it signifies one thing just as if it did not signify

another thing. This is the case with the name 'Socrates', which is applied to several men. There is also the term that is intentionally equivocal ; namely when a word is first applied to some thing or things and subordinated to one concept, and then, later on, because of some resemblance that the thing first signified bears to some other thing, or for some other reason, the same word is applied to this other thing in such a way that it would not have been applied to the second thing, had it not previously been applied to the first. Such is the case with the name 'man'. For 'man' was first applied to signify all rational animals, so that it was applied to signify everything that is contained under the concept 'rational animal'. Later, however, when those who used the word saw the resemblance between such a man and the image of a man, they sometimes called the image a man ; hence if the noun 'man' had not first been applied to men, it would not have been used or applied to signify or stand for such an image. And for this reason it is called intentionally equivocal.

'Univocal', on the other hand, is a term for every name that is subordinated to one concept, whether it signifies several things or not. However, properly speaking, a term is not univocal if it does not or cannot primarily signify several things alike ; in such a manner, however, that it signifies these several things only because one mental content signifies them. Therefore, it is a sign subordinated in its significance to one natural sign, which is a mental content or concept.

This division does not only refer to nouns, but also to verbs, and, in general, to every part of a sentence. Furthermore, something can be equivocal because it can function as different parts of speech ; for instance, as a noun and a verb, or as a noun and a participle or adverb, and the same with other parts of speech.

It must be understood, however, that this division of terms into equivocal and univocal is not one of un-

qualified opposition, such that the proposition 'Something equivocal is univocal', would be completely false. On the contrary, it is true, since really and truly the same word is equivocal and univocal, though not in reference to the same things (just as the same man may be a father and a son, but not of the same person ; or one and the same thing may be similar and dissimilar, though not to the same thing under the same aspect). Hence, if some expression occurs in different languages, it is manifest that it can be univocal in each language. Hence he who knows but one of these languages would not make distinctions over a proposition in which this expression occurred, whereas to one who knows both languages the term is equivocal, and he would in many cases make distinctions over propositions in which such an expression occurs. Thus the same term would be univocal for the one and equivocal for the other.

From the aforesaid it can be gathered that what is univocal does not always have just one definition, since it does not always admit of a proper definition. Hence when Aristotle says that univocal terms are those which have the same name in common and which have the same essential meaning, he takes 'meaning' (*rationem* [λόγον]) for a mental content to which, as a primary sign, the word is subordinated.

It has to be known that 'univocal' can be understood in two senses. In a broad sense it refers to every spoken word or conventional sign that corresponds to one concept. In another sense it is taken strictly for something which is predicable in the first mode of *per se* predication of things relatively to which it is univocal, or of the pronoun which points to some such thing.

A denominative term can for the present be taken in two senses. If it is taken strictly, a denominative term

is one which begins as the abstract term does but does not have the same ending, and signifies an accident; e.g. from 'bravery' we have the denominative term 'brave', or from 'justice', 'just'. Taken broadly, a denominative term is one which has the same beginning as the abstract term and does not have the same ending; but it does not matter, whether it signifies an accident or not. As for instance, from 'life' something is said to be 'living'.

Let this suffice about the division of terms. Some details left out here will be added later on.

IV

THE THEORY OF 'SUPPOSITIO'

Sources:

1	*Summa totius logicae,* I, c. lxii	69
2	*Summa totius logicae,* I, c. lxiii	70
3	*Summa totius logicae,* I, c. lxiv	73
4	*Summa totius logicae,* I, c. lxviii	75

'Suppositio' of terms [in general]

1. Up to now we have been speaking about the signification of terms. It remains now to discuss *suppositio*, which is a property belonging to a term, but only when used in a proposition.

We have to know first that *suppositio* is taken in two meanings. In a broad sense, it is not contrasted with appellation ; appellation is rather a subclass of *suppositio*. In a strict sense, *suppositio* is contrasted with appellation. However, I do not intend to speak about *suppositio* in this sense, but only in the former. Thus, both subject and predicate have *suppositio*. Generally speaking, whatever can be subject or predicate in a proposition has *suppositio*.

'*Suppositio*' means taking the position, as it were, of something else. Thus, if a term stands in a proposition instead of something, in such a way (*a*) that we use the term for the thing, and (*b*) that the term (or its nominative case, if it occurs in an oblique case) is true of the thing (or of a demonstrative pronoun which points to the thing), then we say that the term has *suppositio* for the thing. This is true, at least, when the term with *suppositio* is taken in its significative function. Hence, in general, when a term with *suppositio* is the subject of a proposition, then the thing for which the term has *suppositio*, or a demonstrative pronoun pointing to this, is that of which the proposition denotes that the predicate is predicated. But where the term with *suppositio* is predicate, the thing or pronoun is the one of which the proposition, if formulated, denotes that the subject is a subject. For instance, the proposition 'Man is an animal' denotes that Socrates is truly an animal, so that the proposition 'This is an animal' would be true, if it were formulated while pointing at Socrates. The proposition ' "Man" is a noun', however, denotes that the

vocal sound 'man', is a noun. Therefore in this proposition 'man' stands for this vocal sound. Likewise, the proposition 'A white thing is an animal' denotes that this thing which is white is an animal, so that this proposition would be true : 'This'—pointing at that thing which is white—'is an animal'. Hence the subject stands for that thing. Much the same must be said as regards the predicate. For the proposition 'Socrates is white' denotes that Socrates is *that* thing, which has whiteness ; and for that reason the predicate stands for *that* thing, which has whiteness. And if no other thing had whiteness but Socrates, then the predicate would stand for Socrates alone.

There is a general rule, namely that in any proposition a term never stands for something of which it is not truly predicated, at least if the term is taken in its significative function. From this it follows that it is false to say, as some ignorant people do, that the concrete term as a predicate stands for a form—for instance to say that in the proposition 'Socrates is white' the term 'white' stands for whiteness. For whichever *suppositio* the terms may have, the proposition 'Whiteness is white' is simply false. Therefore, according to the teaching of Aristotle, a concrete term of this kind never stands for such a form as is signified by the corresponding abstract term. But in regard to other concrete terms of which we have spoken before, this is quite possible. In the same way in this proposition 'A man is God', 'man' truly stands for the Son of God, because He is truly man..

The division of 'suppositio'

2. We have to know that '*suppositio*' is primarily divided into personal, simple and material *suppositio.*

Generally speaking, we have personal *suppositio* when a term stands for the objects it signifies, whether the latter be things outside the mind, or vocal sounds, or

mental concepts, or writing, or anything else imaginable. Whenever the subject or the predicate of a proposition stands for the object signified, so that it is taken in its significative function, we always have personal *suppositio*.

An example of the first would be 'Every man is an animal', where 'man' stands for the objects it signifies, since 'man' is a conventional sign meant to signify *these* men and nothing else ; for properly speaking it does not signify something common to them, but, as St John Damascene says, these very men themselves. An example of the second would be to say 'Every vocal noun is a part of speech'. In this case 'noun' stands only for vocal signs ; therefore its *suppositio* is personal. An example of the third would be to say 'Every species is universal', or 'Every mental content is in the mind'. In either case the subject has personal *suppositio*, since it stands for what it conventionally signifies. An example of the fourth would be to say 'Every written expression is an expression'. Here the subject stands only for the thing it signifies, namely for written signs. Hence it has personal *suppositio*.

From this it is clear that personal *suppositio* is not adequately described by those who say that personal *suppositio* occurs when a term stands for a thing. But the definition is this : 'Personal *suppositio* obtains when a term stands for what it signifies and is used in its significative function'.

Simple *suppositio* is that in which the term stands for a mental content, but is not used in its significative function. For instance 'Man is a species'. The term 'man' stands for a mental content, because this content is the species ; nevertheless, properly speaking, the term 'man' does not signify that mental content. Instead, this vocal sign and this mental content are only signs, one subordinate to the other, which signify the same thing,

in the manner explained elsewhere. This shows the falsity of the opinion held by those who say (as is commonly accepted) that simple *suppositio* occurs when a term stands for the object it signifies. For simple *suppositio* obtains when a term stands for a mental content, which is not properly speaking the object signified by the term, because the term signifies real things and not mental contents.

Material *suppositio* occurs when a term does not stand for what it signifies, but stands for a vocal or written sign, as ' "Man" is a noun'. Here, 'man' stands for itself ; and yet it does not signify itself. Likewise in the proposition ' "Man" is written', we can have material *suppositio*, since the term stands for that which is written.

As the three sorts of *suppositio* apply to a spoken sign, so also they can be applied to a written sign. Hence, if the following four propositions are written, 'Man is an animal', 'Man is a species', ' "Man" is a monosyllabic word', ' "Man" is a written word',[1] each one of these could be true, but each one for a different object. For that which is an animal is by no means a species, nor a monosyllabic word, nor a written word. Likewise, that which is a species is not an animal nor a monosyllabic sign. And so with the others. Yet in the two latter propositions the term has material *suppositio*.

Material *suppositio* could be subdivided according as the subject stands for a spoken sign or for a written sign. If we had terms for them, we could distinguish *suppositiones* for a spoken sign and for a written sign, just as we distinguish *suppositio* for the object signified and *suppositio* for a mental content, calling one 'personal' and the other 'simple' *suppositio*. However, we have no such names.

[1] Note, again, that in Ockham's day there were no quotation marks ; in fact, they partly dispel the ambiguity which he is discussing.

As such a difference of *suppositio* can apply to a vocal and written term, so also it can apply to a mental term. For a mental content may stand for that which it signifies, or for itself, or for a spoken or written sign.

It should be noted, however, that personal *suppositio* is not called 'personal' because a term stands for a person, nor is simple *suppositio* so called because a term stands for a simple thing, nor is material *suppositio* so called because a term stands for matter ; but only for the reasons mentioned. Therefore the terms 'material', 'personal' and 'simple' are being used in an equivocal meaning in logic and in other sciences. In logic, however, they are not used frequently except in conjunction with the term '*suppositio*'.

In whatever proposition a term is placed, it may have personal 'suppositio'

3. In whatever proposition a term is placed, it may have personal *suppositio*, if it is not arbitrarily limited to another *suppositio* by those who use it. In the same manner an equivocal term may stand in any proposition for any one of the objects it signifies, if it is not arbitrarily limited to only one such object by those who use it. However, a term cannot have simple and material *suppositio* in every proposition. It can have these *suppositiones* only when the other term of the proposition, to which it is being compared, relates to a mental content or a spoken or written sign. For instance, in the proposition 'Man is running', 'man' cannot have simple or material *suppositio*, since 'to run' does not refer to a mental content, nor to a spoken or written sign. But it is different in the proposition 'Man is a species', for 'species' signifies a mental content. For that reason the term can have simple *suppositio*. Hence the proposition must have its various senses distinguished according to the third mode of equivocation, because the subject may have either

simple or personal *suppositio*. In the first sense the proposition is true, for then it denotes that a mental content or concept is a species, and that is true. In the second sense, the proposition is simply false, since then it denotes that something signified by 'man' is a species, and that is manifestly false.

In like manner the following propositions have to have their possible senses distinguished: '"Man" is predicated of many'; '"Risible" is a property of man'; '"Risible" is predicated primarily of man'. These propositions must have various senses distinguished on the side both of the subject and of the predicate. Likewise in the proposition '"Rational animal" is the definition of "man",' a distinction must be made, for if the subject has simple *suppositio* it is true, if it has personal *suppositio* it is false. Thus it is with many other propositions, such as 'Wisdom is an attribute of God', '"Creative" is a property of God', 'Goodness and wisdom are divine attributes', 'Goodness is predicated of God', 'Innascibility is a property of the Father', etc.

In a similar manner, if a term is compared with the other extreme [viz. the predicate], which refers to a vocal or written sign, the proposition must be distinguished. For the term may have personal *suppositio* or material *suppositio*. Thus the following propositions have to have their senses distinguished: '"Socrates" is a name'; '"Man" is a monosyllable'; '"Paternity" signifies a property of the Father'. For if 'paternity' has material *suppositio*, this proposition is true; '"Paternity" signifies a property of the Father'. If, however, its *suppositio* is personal, then the proposition would be false, because paternity is a property of the Father or is the Father Himself [i.e. when we use 'paternity' with personal *suppositio*, we must say it *is* a property of the Father]. In the same manner the following propositions must have their senses distinguished: '"Rational animal"

signifies the quiddity of "man" ' ; ' "White man" signifies an accidental aggregate' ; ' "White man" is a composite term', and so on as regards many other propositions.

Therefore the following rule can be given : When a term capable of this threefold *suppositio* is compared with an extreme [of a proposition] which is a common term for complex and non-complex, spoken and written, terms, the first term can always have material *suppositio*, and therefore with such a proposition a distinction must be made. When, on the other hand, a term is compared with an extreme that signifies a content of the mind, the proposition has to have its possible meanings distinguished, since the term may have simple *or* personal *suppositio*. When, however, the term is compared with an extreme which is a common term for all the aforesaid classes, then its meanings must be distinguished, since it may have simple, material *and* personal *suppositio*. A proposition which must have its meanings distinguished in this manner is ' "Man" is predicated of many' ; because if man has personal *suppositio*, then it is false, since then it denotes that something signified by the term 'man' is predicated of many. If it has simple *suppositio*, or material *suppositio* either for the vocal or the written sign, then it is true, because both the common concept and the spoken and written sign *are* predicated of many.

Personal 'suppositio' in particular

4. Personal *suppositio* can be divided in the first place into discrete and common *suppositio*. Discrete *suppositio* is that belonging to a proper name of something or to the demonstrative pronoun taken as significative. Such a *suppositio* makes a proposition singular, like these : 'Socrates is a man' ; 'This man is a man' ; and so with others. It may be objected that the proposition 'This plant grows in my garden' is true, yet the subject has

no discrete *suppositio*. To this we have to say that the proposition taken as it stands is false. However, what is understood by it is the proposition 'A plant of this kind grows in my garden', and in this case the subject has determinate *suppositio*. From this it should be noted that when a proposition which as it stands is false, has nevertheless a true sense, then, taking it in this sense, the subject and predicate must have the same *suppositio* as in the proposition which *is* true as it stands.

Common personal *suppositio* is that of a common term, as in 'A man is running', 'Every man is an animal'.

Common personal *suppositio* is divided into confused *suppositio* and determinate *suppositio*. There is determinate *suppositio* when it is possible to make the logical descent to singulars by a disjunctive proposition, as in the correct inference 'A man is running, therefore this man is running, or that man (and so on for every individual)'. It is called 'determinate' *suppositio* because such *suppositio* denotes that a proposition of this kind is true in the case of a determinate singular proposition, which determinate singular proposition by itself, without the truth of any other singular proposition, is sufficient to make such a proposition true. Thus for the truth of the proposition 'A man is running', it is required only that some determinate singular proposition be true; and any one would suffice, even if every other such singular proposition were false. Frequently, however, others also, or even all, of the singular propositions are true. Therefore it is a sure rule that when (1) the logical descent from a common term to its singular inferior terms can legitimately be made by a disjunctive proposition, and (2) from any singular proposition such a proposition is inferable, then this term has determinate personal *suppositio*. Therefore, in the proposition 'A man is an animal', both extremes have determinate *suppositio*; for this follows: 'A man is an animal, therefore, this

man is an animal, or this (and so on in regard to each man)'. Likewise this follows : 'This man is an animal' —if we point at any man—'therefore a man is an animal'. Likewise, it follows : 'A man is an animal, therefore a man is this animal, or, a man is that animal, or that animal (and so on with each animal)'. And this correctly follows : 'A man is this animal'—pointing at any animal —'therefore a man is an animal'. Therefore, both 'man' and 'animal' have determinate *suppositio*.

Confused personal *suppositio* is any personal *suppositio* of a common term which is not determinate *suppositio*. This again is subdivided into merely confused *suppositio*, and confused distributive *suppositio*. Merely confused *suppositio* occurs when (1) a common term has personal *suppositio* ; (2) we are unable to make the logical descent to the singulars by means of a disjunctive proposition without any change of the other extreme ; (3) we can, however, make the logical descent by way of a proposition with a disjunctive predicate ; and (4) the original proposition can be inferred from any singular. For instance, in the proposition 'Every man is an animal', 'animal' has merely confused *suppositio*. For (2) it is not open to us to make the logical descent from 'animal' to its inferior terms ; for this does not follow : 'Every man is an animal, therefore every man is this animal, or every man is that animal (and so on for every animal)'. However, (3) the logical descent can validly be made to a proposition whose predicate is a disjunction of singular terms. For this does validly follow : 'Every man is an animal, therefore every man is either this animal or that or that (and so on for every animal)', for the consequent is a single categorical proposition composed of the subject 'man' and the predicate 'this animal or that or that (and so on for every animal)'. And it is manifest that this predicate is truly predicated of every man, and for that reason this universal proposition is simply true. And likewise (4) this proposition

is inferred from every thing contained under 'animal'. For this follows correctly : 'Every man is this animal' —pointing at any animal—'therefore every man is an animal'.

Confused distributive *suppositio* occurs when it is licit to make a logical descent in some way to a copulative proposition if the term has many inferiors, but a formal inference cannot be made to the original proposition from one of the instances. So it is with this proposition, 'Every man is an animal'. The subject of this proposition has confused distributive *suppositio*. For this follows : 'Every man is an animal, therefore this man is an animal and that one is (and so on for every individual)'. But this does not formally follow : 'This man is an animal' —pointing at any man—'therefore every man is an animal'.

When I said 'It is licit to make a logical descent in some way', I said so because this logical descent cannot always be made in the same manner. For sometimes it is possible to make this descent without making any change on the part of the propositions, except that in the first proposition a common term is subject or predicate, whereas in the consequent the corresponding singulars are taken, as is clear in the aforesaid example. Sometimes, however, it is allowed to make the logical descent with some variation, even omitting something in one proposition which is put in the other and is not the common term nor contained under the common term. For instance, when we say 'Every man except Socrates is running', it is legitimate to make the logical descent to some individuals in a copulative proposition. For this follows : 'Every man except Socrates is running, therefore Plato is running (and so on for every man who is different from Socrates)'. However, in these singular propositions something is omitted, which was put in in the universal proposition ; and that which was omitted is not the common term nor the sign distributing the

common term [viz. the quantifier], for what was omitted was the word expressing exception [i.e. 'except'], together with the term to be excepted. Hence the logical descent is not made in the same manner in the two propositions 'Every man except Socrates is running', and 'Every man is running', nor can the logical descent be made altogether to the same things. The first kind of confused distributive *suppositio* is called 'mobile confused distributive *suppositio*', the second is called 'immobile confused distributive *suppositio*'.

V

TRUTH

Source:

Summa totius logicae, II, c. ii 83

What is requisite to the truth of a singular proposition?

. . . Let us first speak of singular propositions of inherence in the present tense [and not determined by a modality], which have both the predicate and the subject in the nominative case, and are not equivalent to a hypothetical proposition. For the truth of such a singular proposition, which is not equivalent to many propositions, it is not required that the subject and the predicate be really the same, nor that the predicate be really in the subject, or really inhere in the subject, nor that it be really united with the subject outside the mind. For instance, for the truth of the proposition 'This is an angel' it is not required that this common term 'angel' be really the same with that which has the position of subject in this proposition, or that it be really in it, or anything of the sort ; but it is sufficient and necessary that subject and predicate should stand for the same thing. If, therefore, in the proposition 'This is an angel' subject and predicate stand for the same thing, the proposition is true. Hence it is not denoted, by this proposition, that this [individual] has 'angelity', or that 'angelity' is in him, or something of that kind, but it is denoted that this [individual] is truly an angel. Not indeed that he is this predicate ['angel'], but that he is that for which the predicate stands. In like manner also the propositions 'Socrates is a man', 'Socrates is an animal', do not denote that Socrates has humanity or animality, nor that humanity or animality is in Socrates, nor that man or animal is in Socrates, nor that man or animal belongs to the essence or quiddity of Socrates or to the quidditative concept of Socrates. They rather denote that Socrates is truly a man and that he is truly an animal ; not that Socrates is the predicate 'man' or

the predicate 'animal', but that he is something that the predicate 'man' and the predicate 'animal' stand for or represent; for each of these predicates stands for Socrates.

From this it becomes clear that all the following propositions are false in their literal meaning: 'Man belongs to the quiddity of Socrates', 'Man is of the essence of Socrates', 'Humanity is in Socrates', 'Socrates has humanity', 'Socrates is a man by his humanity', and many such propositions, which almost everyone concedes. The falsity of such propositions is clear; I take one of them, viz. 'Humanity is in Socrates', and I ask: For what does 'humanity' stand? Either for a thing, or for a mental content; that is, such a proposition denotes either that a real thing outside the mind is in Socrates, or that a mental content is in Socrates. If 'humanity' stands for a thing, then I ask, For which thing? Either for Socrates, or for a part of Socrates, or for a thing that is neither Socrates nor a part of Socrates. If it stands for Socrates, then the proposition is false. For no thing that is Socrates is in Socrates, because Socrates is not in Socrates, although Socrates is Socrates. And likewise humanity is not in Socrates, but *is* Socrates, if 'humanity' stands for a thing that is Socrates. If, however, 'humanity' stands for a thing that is part of Socrates, then, again, the proposition is false, because every thing which is part of Socrates is either matter, or form, or a composite of matter and form (only one human substantial form, not any other such form, is in question), or else an integral part of Socrates. But none of these parts is humanity, as can be shown case by case. For the intellective soul is not humanity; because then true humanity would have remained in Christ during the three days after his death, and consequently humanity

would have been truly united with the divine Word during this time, and therefore the Word would then have been truly a man, which is false. Likewise, matter is not humanity, nor is the body of Socrates humanity, nor the foot nor the head, nor any of the other parts of Socrates, because no part of Socrates is humanity, but only a part of humanity. Consequently, 'humanity' cannot stand for a part of Socrates. If, however, it stands for a thing which is neither Socrates nor a part of Socrates, such a thing is only an accident or some other thing which is not Socrates ; and therefore 'humanity' in this case would stand for an accident or for some other thing which is neither Socrates nor a part of Socrates. This is manifestly false. If, however, 'humanity' stands for a content of the mind, then also our proposition is manifestly false, since a content of the mind is not Socrates. It is clear then that the proposition 'Humanity is in Socrates' is utterly false.

VI

INFERENTIAL OPERATIONS

Sources:

1	*Summa totius logicae,* II, c. xxxi	89
2	*Summa totius logicae,* II, c. xxxii	90
3	*Summa totius logicae,* III, I, c. i	92
4	*Summa totius logicae,* III, III, c. xxxvi	93

Copulative propositions

1. A copulative proposition is that which is composed of several categorical propositions connected by the conjunction 'and' or some part of speech equivalent to such a conjunction. For instance, 'Socrates is running and Plato is debating' is a copulative proposition ; and so are 'Socrates is neither white nor black', and 'Socrates is no less white than hot', for the former is equivalent to the proposition 'Socrates is not white and Socrates is not black', the second to 'Socrates is white and Socrates is hot'.

For the truth of a copulative proposition, it is required that each part be true. For this reason, if any part of the copulative proposition is false, then the copulative proposition itself is false. Likewise, for the necessity of a copulative proposition it is required that each part be necessary, and for its possibility each part must be possible. But in order that it be impossible it is not required that each part be impossible. For the proposition 'Socrates is sitting and not sitting' is impossible, nevertheless each part is possible. But what is necessary in order that a copulative proposition be impossible, is that one part be impossible or that one part be not possible along with the other. For instance, the proposition 'Socrates is white and Socrates is a donkey' is impossible, since the proposition 'Socrates is a donkey' is impossible. The proposition 'Socrates is sitting and he is not sitting' is also impossible, since the two parts are not possible together.

We should also know that the contradictory opposite of a copulative proposition is a disjunctive proposition composed of the contradictory opposites of its parts. Therefore what is necessary and sufficient for the truth of the disjunctive proposition is what is necessary and

sufficient for the truth of the opposite of the copulative proposition. Hence the propositions 'Socrates is white and Plato is black' and 'Socrates is not white and Plato is not black' are not contradictories; but 'Socrates is not white or Plato is not black' is the contradictory opposite of the original copulative proposition.

It must also be known that there is a valid inference from a copulative proposition to each part of it. Thus it follows: 'Socrates is not running and Plato is debating; therefore Plato is debating'. To argue from the latter to the former proposition, however, is a fallacy of the consequent. Nevertheless one must know that sometimes from one or other part of a copulative proposition to the copulative proposition itself a valid inference is possible, but only because of the subject-matter. For instance, if one part of the copulative proposition entails the other, then it is legitimate to argue from that part to the whole copulative proposition.

Disjunctive propositions

2. A disjunctive proposition is one composed of several categorical propositions by means of the conjunction 'or' or by means of a conjunction equivalent to it. For instance, the proposition 'You are a man or you are a donkey' is a disjunctive proposition; and so is the proposition 'You are a man or Socrates is debating'.

For the truth of a disjunctive proposition it is necessary that one or other part be true. However, this must be understood of the case where the propositions are in the present tense, not when they are, or are equivalent to, propositions in the future tense. This is what the Philosopher would say. In fact, however, it is necessary for the truth of a disjunctive proposition that one or other part be true, because in fact a proposition about the future is true or false, though not inevitably so.

For the necessity of a disjunctive proposition the

necessity of one or other part is not required. For instance, in order that the proposition 'Socrates is sitting or not sitting' be necessary, it is not required that either part be necessary. Rather, for the necessity of a disjunctive proposition it is required that one proposition be necessary or that the parts be contradictories, or equivalent to contradictories, or convertible into contradictories. Hence the proposition 'Socrates is running or God exists' is necessary because the second part is necessary. The following, however, 'God creates or does not create', is necessary because the parts are contradictories.

For the possibility of a disjunctive proposition it is sufficient that either part be possible.

But in order that a disjunctive proposition be impossible it is required that both parts be impossible.

It must be understood that the contradictory opposite of a disjunctive proposition is a copulative proposition composed of the contradictories of the parts of the disjunctive proposition. Therefore the same is necessary and sufficient for the truth of the opposite of a disjunctive proposition as is necessary and sufficient for the truth of the copulative proposition.

Furthermore, it must be understood that from either part of a disjunctive proposition to the entire disjunctive proposition there is a valid argument. To argue the other way round, however, is a fallacy of the consequent, unless there is a special reason which excludes the fallacy. Likewise from the negation of one part of a disjunctive proposition the other part can be validly inferred. Thus from 'Socrates is a man or a donkey' and 'Socrates is not a donkey', it correctly follows 'Therefore Socrates is a man'.

Syllogism and its main division

3. Some syllogisms are demonstrative, some are topical, some are neither topical nor demonstrative. A demonstrative syllogism is that in which primary knowledge of a conclusion can be obtained from propositions that are necessary and evidently known. A topical syllogism proceeds from probable propositions. Probable propositions are those which appear true to all or to the majority or to wise men, and among the last either to all or to most or to the wisest. This description has to be understood as follows : Probable propositions are of such a nature that, though they are true and necessary, nevertheless they are not known by themselves, nor can they be obtained by a syllogistic process from propositions known by themselves, nor are they evidently known from experience ; nor do they follow from propositions known from experience. Nevertheless, because of their truth, they appear to be true to all or to the majority, etc. A brief description of them could be as follows : Probable propositions are necessary, and they are neither principles nor conclusions of a demonstration, but because of their truth they appear to be true to all or to the majority, etc.

The first part of the description excludes all contingent and false propositions ; the second, all first principles and conclusions of demonstrations. The third excludes certain necessary truths which appear, however, to be false to all or to the majority, etc. And to this class belong the articles of faith ; they are neither principles of demonstration nor conclusions, nor are they probable propositions, since they appear to be false to all or to the majority or to the most wise men. It is understood that we are taking 'wise' here in the sense of 'the wise men of this world', that is of those who are supported by natural reason alone, for in the description of a prob-

able proposition 'wise' is taken in this sense.

From this it follows that a topical syllogism is not deficient in matter or form. It also follows that no-one, according to the common course of nature, can know, evidently and demonstratively, that a topical syllogism is topical, though he can have the belief that it is a topical syllogism. Also something else follows, viz. that not every topical syllogism makes us doubt or fear that we are wrong, but it often makes us have primary belief without any doubt, because sometimes we adhere to probable propositions as we do to evidently known propositions.

General rules of inference

4. There are many general rules of inference :

(1) *From truth falsity never follows.*

Therefore when the antecedent is true and the consequent is false, the inference is not valid. This reason is sufficient to prove that an inference is not valid. However, it is to be understood that 'antecedent' means everything that precedes the consequent. Therefore sometimes the antecedent is only one proposition, and sometimes it contains several propositions, as is obvious in a syllogism. In this case, though one of the propositions of the antecedent may be true, the conclusion may be false ; but if every one of the propositions is true, the conclusion cannot be false, if it follows from them.

(2) *From false propositions a true proposition may follow.*

Hence this inference does not hold : 'The antecedent is false, therefore the consequent is false'. But the following inference holds : 'The consequent is false, therefore so is the antecedent'. Therefore, if the consequent is false, it is necessary that the antecedent as a whole is false or that some proposition which is part of the antecedent is false. But it is not required that every proposition which

is part of the antecedent should be false. For sometimes from one true and one false proposition a false conclusion follows, as is obvious in the following instance : 'Every man is an animal, a stone is a man, therefore a stone is an animal'.

(3) *If an inference is valid, then from the opposite of the consequent the opposite of the antecedent follows.*

It has to be noted that when the antecedent is one proposition and the inference is valid, then from the opposite of the consequent the opposite of the entire antecedent always follows. However, when the antecedent contains several propositions, then it is not required that from the opposite of the consequent the opposite of every proposition which is part of the antecedent should follow ; but it is required that from the opposite of the consequent combined with one of the propositions of the antecedent the opposite of the other proposition should follow. Thus this inference follows : 'Every man is white, Socrates is a man, therefore Socrates is white' ; but this one does not follow : 'Socrates is not white, therefore Socrates is not a man'. On the other hand, this is correct : 'Every man is white, Socrates is not white, therefore Socrates is not a man'. Thus from the opposite of the conclusion and the major premise the opposite of the minor premise follows, but it does not follow from the opposite of the conclusion alone. Likewise this is correct : 'Every man is an animal, a donkey is a man, therefore a donkey is an animal' ; nevertheless from the opposite of the conclusion alone the opposite of the major premise does not follow. For this does not follow : 'No donkey is an animal, therefore not every man is an animal'. But from the opposite of the conclusion and the minor premise, the opposite of the major premise follows in this way : 'No donkey is an animal, a donkey is a man, therefore not every man is an animal'.

(4) *Whatever follows from the consequent follows from the antecedent.*

For instance, if this follows, 'Every animal is running therefore every man is running', then, whatever follows from the proposition 'Every man is running' follows also from 'Every animal is running'.

From this rule follows another :

(5) *Whatever is antecedent to the antecedent is antecedent also to the consequent.*

For, it it were not so, then something would follow from the consequent which does not follow from the antecedent.

The following rules, however, are false : *Whatever follows from the antecedent, follows from the consequent.* For this follows : 'Every animal is running, therefore every man is running' ; and nevertheless this does not follow : 'Every donkey runs, therefore every man is running'. Likewise this rule is false, for the same reason : *Whatever is antecedent to the consequent, is antecedent to the antecedent.*

From these other rules follow :

(6) *Whatever is consistent with the antecedent is consistent with the consequent.*

For instance, whatever is consistent with the proposition. 'Every animal is running' is consistent with 'Every man is running'. But not everything that is consistent with the consequent is consistent with the antecedent. For with the consequent 'Every man is running', the following is consistent, ' Some donkey is not running' ; but this is not consistent with the antecedent 'Every animal is running'. This is the case, when the antecedent does not follow from the consequent either in simple or in factual inference.

(7) *Whatever is inconsistent with the consequent is inconsistent with the antecedent.*

For instance, whatever is inconsistent with the proposition 'Every man is running' is inconsistent with 'Every animal is running', but not vice versa. For something is inconsistent with an antecedent which is not inconsistent with its consequent. The following propositions are inconsistent : 'Only a man is running' and 'Something different from a man is running'. Yet the following propositions are not inconsistent : 'A man is running' and 'Something different from a man is running'. Therefore, such inferences as these are valid : 'The opposite of the consequent is consistent with the antecedent, therefore the inference is not valid' ; and 'The opposite of the consequent is not consistent with the antecedent, therefore the inference is valid'.

However, it is to be understood that such an inference may be valid only at a certain time (*ut nunc*), because at a certain time the opposite of the consequent may be consistent with the antecedent. But if the opposite of the consequent is or could be consistent with the antecedent, it cannot be a simple inference [which holds at any time].

(8) *From something necessary something contingent does not follow.*

(9) *Something impossible does not follow from something possible.*

These two rules have to be understood of simple inference. For in simple inference, from something necessary something contingent does not follow. Nevertheless, it may indeed follow in a factual inference. For instance, this follows : 'Every being exists, therefore every man exists' ; but nevertheless the antecedent is necessary and the consequent contingent. Likewise it follows : 'Every coloured thing is a man, therefore every donkey is a man', but nevertheless the antecedent is possible and the

consequent impossible. The consequence is valid only as a factual one.

It is to be noted that though, in a simple consequence, from something possible something impossible does not follow, nevertheless it sometimes happens that if something possible is affirmed, something impossible has to be conceded and something necessary has to be denied ; but this can be done only in the art of *Obligatio* [that is, in the art of purely logical disputation] and only for the course of a given disputation.

Other rules are given :

(10) *From an impossibility anything follows.*
(11) *What is necessary follows from everything.*

Therefore this follows : 'You are a donkey, therefore you are God'. This also follows : 'You are white, therefore God is triune'. But these consequences are not formal ones and they should not be used much, nor, indeed, are they used much.

VII

BEING, ESSENCE AND EXISTENCE

Sources:

1 *Summa totius logicae,* I, c. xxxviii 101

2 *Summa totius logicae,* III, II, c. xxvii 103

The notion of being

1. The first thing to know about 'being' (*ens*) is that 'being' can assume two meanings. In the first sense, the noun 'being' is associated with a concept which is common to all things and can be predicated of all things in the manner of a quiddity,[1] in the way that a transcendental term can be predicated in the manner of a quiddity. In favour of the statement that there is a concept common to and predicable of all things, the following persuasive argument can be adduced. If there is no such common concept, then diverse concepts—let us call them *A* and *B*—are common to diverse things. However, I can show that there is a concept, more common than *A* and *B*, and predicable of any given subject, let us say *C*. For example : just as the three spoken propositions '*C* is *B*', '*C* is *A*', '*C* is something', can be formulated, so likewise three such mental propositions can be formed. Of these mental propositions two are doubtful and the third is known to be true. For it is possible that someone should doubt both propositions '*C* is *B*' and '*C* is *A*', and nevertheless know that *C* is something. If this is granted, then I argue in the following manner : Two of the aforesaid propositions are doubtful and one is known ; but all three propositions have the same subject, consequently they must have distinct predicates. For if they did not, then the same proposition would be known and would be dubious, since we assumed that the two are doubtful. If, however, they have distinct predicates, then there is another predicate in this proposition, '*C* is something', which is not the predicate in one of the other two propositions, viz. '*C* is *B*', '*C* is *A*'. Therefore this predicate 'something' is distinct from the other predicates. Yet it is manifest that this predicate is not less common than

[1] i.e., so that it answers the question 'What is it ?'

either, and with at least one of them it is not coextensive ; consequently, it is more common than at least one of them. This is what was to be proved, namely that some concept of the mind other than these less extensive concepts is common to every being. And this must be conceded. For of every being, or of the pronoun pointing to any being, the same mental concept can be truly predicated, just as the same word can be predicated of every thing.

Notwithstanding there is a concept thus common to every being, the name 'being' is equivocal. For it is not in accordance with one concept that it is predicated of all its possible subjects taken in their significative function. Rather, to the name 'being' there correspond diverse concepts, as I have explained in my exposition of Porphyry.

Furthermore, it is known that according to the Philosopher in the fourth book of the *Metaphysics*, 'is' is applied both to what *is* incidentally and to what *is* intrinsically. This distinction does not mean that some being exists intrinsically and another exists incidentally. Aristotle is rather pointing out the different ways of predicating one term of another by means of the verb 'is'. This is sufficiently clear from the examples used by the Philosopher. He says : 'We say that the musician is incidentally just, and also that the musician is incidentally a man, and we say that the musician is incidentally building'. From this it is clear that he is speaking only about the diverse modes of predicating one term of another. For something is asserted of something intrinsically, and something is asserted of something incidentally. For it is manifest that there is not one thing which is intrinsically existent and another that is incidentally existent, for this reason : there is nothing besides substance or accident ; but both substance and accident exist intrinsically ; therefore, etc. However, notwithstanding this, something is predicated of another

thing intrinsically, and something else of something else incidentally.

The distinction between potential existence and actual existence is similar. It does not mean that something which is not in the universe, but can exist in the universe, is truly a being, or that something else which is in the universe is also a being. Rather, when Aristotle divides 'being' into potentiality and actuality in the fifth book of the *Metaphysics*, he has in mind that the name 'being' is predicated of some thing by means of the verb 'is', in a proposition which merely states a fact concerning a thing and is not equivalent to a proposition containing the mode of possibility. For instance, 'Socrates is a being', 'Whiteness is a being'. About something, however, 'being' is predicated only in a proposition containing the mode of possibility or equivalent to one containing this mode. For instance, 'The Antichrist can be a being', or 'The Antichrist is potentially a being', and so also with other propositions. Hence, Aristotle declares in the same place that 'being is divisible into potential and actual, as knowledge and rest are' ; but nothing is knowing or resting unless it is actually knowing or resting.

The distinction between existence and essence

2. Since we have touched upon 'existence' (*esse existere*), we shall make a digression for a while and consider how the existence of a thing is related to the thing, i.e. whether the existence of a thing and its essence are two entities extra-mentally distinct from each other. It appears to me that they are not two such entities, nor does 'existence' signify anything different from the thing itself. For if there were something distinct, then it would be either a substance or an accident. But it is not an accident, because in that case the existence of a man would be a quality or a quantity, which is manifestly false, as can

be shown by considering cases. Nor can it be a substance, because every substance is either matter or form, or a composition of matter and form, or a separated substance. But it is manifest that none of these can be called the existence of a thing, if existence is a thing distinct from the essence (*entitas*) of the thing itself.

Furthermore, if essence and existence were two things, then either they would constitute something that is intrinsically one, or they would not. If they did, then the one must be actuality and the other potentiality ; hence the one would be matter and the other form ; but that is absurd. If, however, they did not constitute something that is intrinsically one, then they would be one as an aggregate is one, i.e. they could constitute some one thing only incidentally. From this, however, it would follow that the one is an accident of the other.

Furthermore, if they were two things, then no contradiction would be involved if God preserved the essence of a thing in the world without its existence, or vice versa, its existence without its essence ; both of which are impossible.

We have to say, therefore, that essence (*entitas*) and existence (*existentia*) are not two things. On the contrary, the words 'thing' and 'to be' (*esse*) signify one and the same thing, but the one in the manner of a noun and the other in the manner of a verb. For that reason, the one cannot be suitably substituted for the other, because they do not have the same function. Hence the verb 'to be' can be put between two terms by saying 'Man is (*est*) an animal', but the same cannot be done with the noun 'thing' or 'essence' (*entitas*). Hence 'existence' (*esse*) signifies the thing itself. Now, it signifies the first simple cause, when it is predicated of this cause without signifying that it depends on something else. However, when it is predicated of other things, it signifies them in their dependence on, and subordination to, the first cause. And this is so, because these things are things

only in as much as they are dependent on and ordered towards the first cause, just as it is only thus that they exist. Hence, just as a man does not exist when he is not depending on God, so likewise he is not, in that case, a man.

Therefore there is no more reason to imagine that essence (*essentia*) is indifferent in regard to being (*esse*) and non-being, than that it is indifferent in regard to being an essence and not being an essence. For as an essence may exist and may not exist, so an essence may be an essence and may not be an essence. For this reason the following arguments are invalid : 'Essence may exist and may not exist, therefore existence is distinct from essence' ; 'Essence can come under the opposite of existence, therefore essence differs from existence'. Just as the following ones are not valid : 'Essence may be or may not be an essence, therefore essence differs from essence' ; 'Essence can come under the opposite of essence, therefore essence differs from essence'. Hence, there is no more reason for essence and existence to be two things, than for essence and essence to be two things. Therefore existence is not a thing different from the essence of a thing.

This is the teaching of the Lincolnian [Robert Grosseteste], when he says on the second book of the *Posterior Analytics* : 'When "it exists" is said of the first cause, what is predicated is just the absolutely simple essence of the first cause ; but when "it exists" is said of other things, what is predicated only is just their order and dependence on the first being, which exists of itself. And this ordering or dependence does not add anything to the dependent essence. For that reason, the question whether or not a thing exists does not figure among the demonstrative questions, whether it be raised about the first being or about a being dependent on the first being'.

The reason why the saints and others say that God is His very existence is this. God exists in such a manner

that He cannot not exist ; in fact, He exists necessarily ; and He is not from something else. A creature, on the other hand, exists in such a manner that it does not necessarily exist, just as it is not necessarily a thing ; and it is from something else, just as it is a thing on account of something else as its efficient cause. For that reason, there is no distinction in God between 'that which is' and 'that in virtue of which it is', because there is not anything different from God in virtue of which God is. But in a creature there is a distinction, because that which a creature is and that in virtue of which a creature is are simply distinct, just as God and a creature are distinct.

VIII
THE POSSIBILITY OF A NATURAL THEOLOGY

Sources:

1 *Quodlibeta*, V, Q. I 109
2 *Ordinatio*, D. II, Q. IX, P *sqq*. 114
3 *Reportatio*, III, Q. VIII 118

[*On the knowability of God*]

1. *Whether a truth specifically and numerically the same can be proved in theology and in natural knowledge?*

No: For the same specific truth cannot be known by two different kinds of knowledge: but the specifically different middle terms in theology and natural knowledge cause specifically different knowledge; hence the conclusion must necesarily have a different meaning.

On the contrary: Unless the same truth could be proved in natural knowledge and in theology, philosophy would be of no help to theology.

Answer: First, I distinguish the senses of the term 'knowledge'; secondly, I answer the question.

Concerning the first point I say: 'Natural knowledge' is taken in two senses. In one sense, it means the possession of just one conclusion, whether this is a natural or a theological *habitus*. In the second sense, it means an aggregate formed of all those *habitūs* which have a definite order as regards one conclusion, whether they relate to non-complex or complex contents.

Concerning the second point, assuming that every truth necessary for salvation is theological, I maintain that the same specific theological conclusion cannot be proved in theology and in natural knowledge, if we understand 'knowledge' in the first sense. The reason is, because there are as many distinct cognitions as there are distinct conclusions known. Hence, just as there cannot be different acts of knowledge of one conclusion, since plurality must not be asserted without necessity, so also the same conclusion cannot be proved in different sciences. If, however, we understand 'theology' and 'knowledge' in the second sense, then a conclusion that is not only specifically the same but also numerically

the same can be proved in theology and in natural knowledge, provided that both [sciences] exist in the same intellect. For instance, the conclusions 'God is wise', 'God is good'.

I prove this because there is no more reason against it than against holding that a specifically and numerically identical conclusion can be proved both in a demonstration *quia* [a proof of the fact] and in a demonstration *propter quid* [a proof giving the reason for the fact]. Yet the latter is possible : first, because a specifically and numerically identical effect can be caused by specifically different causes ; consequently, though in either case the middle terms are different in kind, nevertheless the conclusion may have the same meaning. Secondly, because the mental proposition 'No infinite being exists' contradicts immediately the mental proposition 'An infinite being exists', which is proved both in theology and in natural knowledge, and, therefore, has the same meaning in both.

It is objected : A theologian understands by the term 'God' an infinite being which is nobler than an infinity of beings of a different type ; if these were coexistent, it would be nobler than all of them, not only taken separately, but even taken together. Then the argument runs as follows : If we understand 'God' in this sense, then the existence of God is not naturally known. The inference is clearly valid. The antecedent is proved thus : It is not naturally evident that something infinite exists, except from motion or from causality ; but in this way it can only be proved that something infinite exists which is better than each one of an infinity of beings taken separately, not better than all taken together ; therefore, etc.

Furthermore, the middle terms by which they [theologian and philosopher] prove the conclusion either have the same meaning, or they have different meanings. If the first alternative is admitted, then the conclusion

and its terms would have precisely the same meaning [for both theologian and philosopher], and thus the conclusion would not be proved by different kinds of knowledge. On the second alternative, a proper middle term of a specific conclusion is a definition or description given in terms that are predicable as answers to the question 'What is it?' Such a description is different for different kinds of knowledge, and consequently the simple cognition caused by such a description will be different in kind; therefore the conclusion of which the simple cognition is the subject will be different in meaning.

To the first objection I reply: If a conclusion of the same meaning could not be proved in different sciences, then a theologian who is a believer and a pagan philosopher could not contradict each other in regard to the proposition 'God is three and one', since propositions in words (being subordinate signs) are not contradictory unless the propositions in the mind are contradictory. But affirmative and negative propositions in the mind are not primarily contradictory unless they are composed of concepts of the same kind, though a contradiction can sometimes be inferred from propositions composed of concepts different in kind. Otherwise, if this were not true, a contradiction could happen with equivocal terms as in the case of 'Every dog is running, some dog is not running', where the concepts are different in kind, viz. one of a barking dog and one of a star in the sky. This is obviously false, since a contradiction is an opposition of thing and name (meaning by 'name' not only a vocal but a mental name). I maintain, therefore, that some conclusions of the same meaning are proved in different sciences and some conclusions are not. This particular proposition I hold as true; not, however, the universal one [viz. that all conclusions can be proved by different kinds of knowledge].

To the argument I reply: Just as the conclusion in

which 'being three and one' is predicated of any concept of God cannot be proved in different kinds of knowledge, but is proved only in theology under the supposition of faith, so also a conclusion in which the subject is God described as 'Something better than anything besides Him' (no matter what is predicated of God) cannot be proved in different sciences, but only in theology. Hence the conclusions 'God is good', 'God is wise', etc., cannot be proved in different kinds of knowledge, if 'God' is understood in the sense of the aforesaid description. The reason for this is that the existence of God, understood in this sense, is not naturally evident, as the argument infers ; this is shown in the first *Quodlibet*. And, therefore, it is not naturally evident that God, understood in this sense, is good. But from this it does not follow that we cannot prove another conclusion in which 'good' or 'wise' is predicated of a concept of God, if by 'God' we understand 'something to which nothing is superior in perfection or prior'. For the existence of God in this sense can be demonstrated ; because otherwise we should have to go on *in infinitum*, unless among existents there were one than which nothing is more perfect. Or again, the conclusion in which 'good' is predicated of 'the first cause', or of some other concept at which a philosopher could arrive by natural means, could be proved both in theology and by natural knowledge.

Hence, concerning the form of the argument I concede the antecedent and the consequent, since it is not against me.

To the other argument I reply that a theologian and a natural philosopher prove the same specific conclusion by middle terms different in meaning.

And when it is said that the proper middle term is a definition or a sort of description of the subject, I reply that this is not always the case. Sometimes the middle term is a definition that expresses the integral parts of

the thing defined, for instance when the property of having three angles is proved about a triangle. Sometimes the middle term is the first subject of a property, as for instance when the property of being receptive of education is demonstrated of man by means of the intellective soul. Sometimes the middle term is a common concept. And there are many ways in which something can be a middle term. In addition, even granted that the middle term is always the description of the subject, I nevertheless maintain that such a description will be of a different kind in different kinds of knowledge.

When it is said, furthermore, that a description different in meaning causes simple cognition of a different kind, the statement is in many ways faulty. First, because the definition of the subject never causes a non-complex cognition of the subject, since that knowledge is presupposed by every definition and is acquired by intuitive cognition ; though the definition might partially cause a complex cognition by means of reasoning—reasoning that presupposes non-complex cognition of the subject. Furthermore, even granted that the description of the subject were an efficient cause of such simple cognition of the subject, nevertheless because of this it does not follow that descriptions of different meanings cause non-complex cognitions of different kinds, since causes of different kinds can have an effect of the same kind. This is evident from the fact that heat can be caused by the sun and by fire, and likewise from the fact that both cognition and will cause love. Furthermore, if such a simple cognition existed it would not be the subject of the conclusion to be proved by a description, but it would be the middle term, just as the description itself is a middle term. For according to the Philosopher in the first book of the *Posterior Analytics* : 'Of the subject it is said that we have to know previously what it is and that it is' ; consequently, the subject must already be had before the demonstration. Hence,

though this simple cognition, if it were possible, could be the subject in some conclusion, nevertheless such a conclusion would never be proved by such a description.

Concerning the main argument, I concede that the same conclusion cannot be known in knowledge of two different kinds ; however, I deny the minor premise, viz. that the different meanings of the middle terms in theology and a natural science cause knowledge of different kinds, if we take 'knowledge' as possession of one conclusion.

[*On the knowableness of God in a common concept*]

2. There is a concept, common to God and creatures, which can be predicated of them in the manner of an essence and in the first mode of intrinsic (*per se*) predication.

In order to show this, I shall show :

first that God cannot be so known in Himself: that the divine essence itself is the immediate term of an act of understanding without the help of an accompanying thought-object.

secondly, that we cannot know God in this life in a concept that is simple and proper to Him ;

thirdly, that we can know God in a common concept that is predicable of Him and others ;

fourthly, that some such concept, in which we can conceive of God, is quidditative [answers the question 'What thing is this ?'] ; and,

fifthly, from this it follows that some one concept is predicable of God and others in the manner of an essence and in the first mode of intrinsic predication.

I prove the first thesis in the following manner : Every intellect that knows some nature in itself without the help of an accompanying thought-object can truly know that this thing exists in reality, or that it does not include a contradiction. Indeed, it cannot even suspect that this object includes a contradiction. But a man in this life

who knows God by a non-complex cognition (in as far as this is possible for such a man) can still doubt whether the statement 'God exists' contains a contradiction. He can have such a doubt, even if we admit that he firmly believes that it is not impossible for anything to exist except what includes a contradiction. Therefore such a man does not know God in Himself in the manner before explained. The major premise seems to be manifest. For it is evident that nothing is ever conceived as including a contradiction unless several objects are conceived; therefore he who conceives only one thing, and not several, cannot suspect that this thing includes a contradiction. The minor premise is also manifest, since many do doubt whether God exists, and whether it is possible that God exists.

Furthermore, everything known in itself is known either intuitively or abstractively. Therefore if the divine essence is known in itself, we know it either intuitively or abstractively. It is clear that it is not intuitively known; for such cognition is beatific, which it is not possible for us to have by purely natural means. Nor is such a cognition abstractive; because, as has been declared in the prologue [of the *Commentary on the Sentences*], we can know nothing abstractively in itself by purely natural means without first knowing it intuitively. For if it is abstractively known, it is known either by intuitive cognition of the same thing, and we have our intended thesis, or by the *species* of a thing. But the latter will not do. First, because such a *species*, as will be proved later, is not to be admitted; secondly because, as is clear in other cases, a *species* is not sufficient to produce abstractive cognition without a previous intuitive cognition. Or, finally, it is known abstractively through intuitive cognition of another thing; but this is impossible, for, as we have proved in the prologue, no non-complex cognition of one thing can be sufficient cause for the cognition of another thing.

I prove the second thesis : We can know nothing by purely natural means in a simple concept proper to it without first knowing it in itself. This is clear by considering cases. For otherwise it could be said that a man born blind can know colour in a concept proper to colour, since it is no more reasonable that God, than that colour, should be known in a proper concept without being first known in Himself or itself ; as will be explained in the following distinction. But it is manifest that colour cannot be known by such a man in a proper concept. Consequently neither can God. This reasoning establishes equally well the preceding conclusion, from which the present conclusion follows.

The third thesis is proved in this way : Everything knowable by us is known either in itself, or in a simple concept proper to it, or in a composite concept proper to it, or in a concept common to it and others. Now, God is known in some manner by us, but not in the two first modes, as has been explained. Therefore, God is known in the third or the fourth mode. But if God is known in the third mode, then He must be known in the fourth mode. For a proper composite concept must be composed of simple and common concepts, since it cannot be composed of simple and proper concepts.

The fourth point I show by a proof advanced by the Subtle Doctor [Duns Scotus], which is conclusive for me. I reason in the following way. If God is conceived in a concept common to Him and others, then I ask 'Is this concept quidditative or denominative?' [1] If it is quidditative, I have the intended thesis. If it is denominative, then I ask about this concept 'Of what kind of concept do you make the denominative concept a predicate?' Either this concept is in turn denominative, and then we shall have to go on *in infinitum* ; or it is quidditative, and then I have the intended thesis. For instance, I have, let us say, the concept 'creative', and I know that it is denominative ; hence I must have

[1] For 'quidditative', 'denominative', see above, pp. xli and 63 sq.

a previous concept of which I make this an attribute, saying, for instance, 'Some being is creative'. Now, it is certain that this concept of which the other is made an attribute is not denominative ; or, if it is denominative, either this will go on *in infinitum*, or we shall finally stop at some quidditative concept. Then I ask about this ultimate quidditative concept 'Is it common to God and creature ?' If so, then I have the intended thesis. Or is it proper to God ? But that is already disproved. Or is it proper to a creature ? That, however, is impossible, because in that case it could stand only for a creature, and therefore the proposition 'Some being is creative' would be false.

This proof is confirmed as follows : Every denominative concept has a definition expressing the meaning of the term, and in this definition something is put in the nominative case and something in another case. Now, I ask about one part of this definition [sc. the part in the nominative case] 'Does it have a definition like the former, expressing the meaning of the term, or not ?' If not, then I have the intended thesis, viz. that such a concept is necessarily quidditative. If so, then it has a definition expressing the meaning of the term ; and then again I ask about its parts as before. Thus, either this will go in *in infinitum*, or we shall finally stop at some quidditative concept predicable of that of which the first denominative concept is predicated.

From this it follows that there is a concept which is one and is predicable of God and of creatures in answer to the question 'What thing is this ?' and in the first mode of intrinsic predication. And from this it follows, further, that the spoken word corresponding to this concept is simply univocal.

I maintain, therefore, that something is univocal to God and creatures without there being any composition in God Himself. For just as that which is univocal to any individuals of the same lowest species does not enter

into composition with the individuals themselves nor with anything existing in the individuals, so that which is univocal to God and creatures does not make for any composition in God. The reason for this is that, generally speaking, nothing real is univocal to God and creatures, if we take 'univocal' in its strict meaning; for nothing that exists in a creature, whether it be essential or accidental, has perfect similitude with something which really exists in God. It is this strict univocation and no other that the saints and [recognised] authors deny is found between God and creatures.

[*Univocity and analogy*]

3. Concerning 'analogy' I first maintain that it is taken in as many distinct ways as is 'univocity'. We have to know here that 'univocal' denotes a concept common to things which are perfectly alike in all essentials without any dissimilarity. This is true not only for concepts of substances but also for concepts of accidents; for in one accidental form nothing can be found dissimilar to any form in another accidental form of the same kind. For instance, though whiteness in the fourth degree and in the first three degrees are not absolutely similar; still nothing is to be found in one whiteness which is dissimilar to anything in the other whiteness. If 'univocal' is understood in this sense, then only the concept of the lowest species is univocal, since in individuals of the same species there is nothing to be found which differs in kind in the one and the other.

In another sense, 'univocal' denotes a concept common to things which are not absolutely similar and not absolutely dissimilar, but in certain respects similar and in certain others dissimilar, either intrinsically or extrinsically. In this manner, man and donkey agree in the concept 'animal' as a univocal concept; though their specific forms are different, yet the matter in both is

of the same kind. Thus they agree in something essential, and in something else they differ. In this manner also man and angel agree in the concept 'substance' as a univocal concept; though they do not agree in something intrinsic, nevertheless they do agree in something extrinsic, because they have accidents of the same kind, viz. intellection and volition. In this manner also blackness and whiteness agree in the concept 'colour'; though they do not agree in something intrinsic, because everything in the one is different from anything found in the other, nevertheless they agree in something extrinsic, because they have a subject of the same kind. It is of 'univocal' in this sense that the Philosopher says in the seventh book of the *Physics*: 'Many equivocations are implicit in a genus'. For if we understand 'equivocation' in contradistinction to perfect similitude or to univocation as between things which are perfectly similar, then neither the concept of the subordinate nor that of the highest genus is univocal; but rather there is equivocation in the genus.

In a third sense 'univocal' denotes a concept common to many things which have no likeness, either substantial or accidental. In this manner, every concept which applies to God and to creatures is univocal to them; for in God and in creatures there is nothing at all, intrinsic or extrinsic, which is of the same kind.

The first and the second univocation the saints deny of God, the first because nothing essential in God and in creatures comes under the same concept, the second because nothing accidental comes under the same concept in God and in creatures. Just as the essence of God is dissimilar to that of creatures, so likewise are the wisdom of God and the goodness of God. For this reason, Damascene says: 'God is not wise, but more-

than-wise ; God is not good, but more-than-good'. However, the third univocation is admitted even by the saints, and both by those who hold univocation and those who deny it. Even the philosophers admitted such univocation in God. If we take 'univocal', however, in the second sense, there is much dissimilarity between things which agree only in a generic concept ; for, no matter how much they may have something similar, as was made clear before, still all of them are very dissimilar. . . .

Concerning our present problem, I say that 'analogy' is taken in two senses. In one sense it is taken for a univocal concept of the third kind, which is neither purely equivocal nor purely univocal. For it is one concept and not many ; but neither is it purely univocal by having the most perfect univocation, viz. the first type, nor by having the second type. For that reason, it is said that it is midway between pure univocation and equivocation.

In the second sense, we speak of 'analogy' when we have four terms and two of them are predicated of the other two, but they are related to each other only by conformity and proportion. Such analogy does not exclude perfect univocation. For instance, in the following case we have such an analogy : 'As man is related to animal, so is whiteness to colour'. Here that which is predicated in each proposition is univocal in the second way. Likewise in this case we have such an analogy : 'As Socrates is related to man, so is this whiteness to whiteness'. Here perfect univocation obtains.

To an objection concerning the analogous use of the term 'healthy', I say that when 'being' (*ens*) is applied to 'subject' and 'accident' and we use these names or concepts, it signifies and is predicated otherwise than when it is applied to 'substance', 'quality', 'quantity', etc. 'Healthy' primarily signifies the health of an

animal, and it also signifies a diet and urine, but in such a way that it always connotes the health of an animal. Thus food is called 'healthy' by denomination, because this name or concept, as it is predicated of 'diet', connotes something extrinsic to the diet, namely the health of an animal. Likewise it is predicated of 'urine' denominatively for the same reason.

Hence food is said to be healthy, because it effects health, and urine is said to be healthy, because it is an indicator of health in an animal. Yet when 'health' is affirmed of the health of any animal, it is affirmed of it as an answer to the question 'What thing is this?' and affirmed univocally, not by denomination. Therefore, formally speaking, 'health' taken in the first manner [as applied to 'animal', 'food' and 'urine'] is only one and the same *word*; taken in the second manner it is one and the same *concept*.

It is the same with 'being' (*ens*). This word, taken in one sense, primarily signifies a substance by means of one concept proper to all substances, and secondarily it signifies all accidents by means of several concepts. 'Being' thus predicated is affirmed of all substances as an answer to the question 'What thing is this?' because only one concept is involved; but it is affirmed of every accident denominatively, because when taken in this manner 'being' is affirmed of an accident only because it connotes the substance to which the accident is attributed as its disposition and as that which is principally signified by 'accident'. In the same way, 'healthy' is affirmed univocally of the health of every animal, since it signifies every such instance of health by means of one concept; and secondarily it signifies food and urine by means of several concepts, but always connotes at the same time the health of an animal; therefore, it is affirmed denominatively of food and urine. This is what the Philosopher has in mind in the fourth book of the *Metaphysics* [where he says that 'being' is

not predicated univocally or equivocally or denominatively, but in a manner between them, viz. analogously], and so it was perhaps in the Greek language, which the Philosopher used. However, in the present investigation we are not speaking about 'being' in this way. We only speak of that 'being' which primarily signifies every positive nature equally, be it substantial or accidental, and which does not signify substance as prior to accident.

In favour of univocation I know of only one argument on which all the others depend ; and it is this : All agree that we have some non-complex knowledge about God in this life, and also about created material and immaterial substance. Then I ask 'When I think of God by understanding a proposition (*complexum*), do I know Him in Himself or in something different ?' I do not know him in Himself, as all concede, since I know Him in Himself neither intuitively nor abstractively. Not intuitively, as it is manifest. Nor abstractively, since abstractive cognition always presupposes intuitive cognition, at least where it is an abstractive cognition of the same thing, as it is shown elsewhere ; therefore, etc. Hence I no more know God in Himself abstractively in this life than I know in himself the Pope, whom I have never seen, and whom I know only in the concept of 'man'. Hence I do not know God in Himself in this life, nor any substance [in itself]. If He is known in something different from Him, then He is known either in a concept common to Him and others, or in something real which is different from Him. If in something real different from Him, this is distinct from God either only in thought or in reality. It is not distinct only in thought, since we proved in the first book that a thing cannot be distinct from a thing by a distinction of thought ; nor is it really distinct, for, on that supposition, when I think of God, some singular created thing is the term of my act of intellect, and then I do not know God more than any other thing about which I do not think,

since I know only that singular thing which is the term of my cognition. Hence it must necessarily be stated that when I know God in this life, I know Him in a concept which is common to Him and to other things, so that the term of the act of knowing is some one thing and not a plurality, and is common to many things.

Furthermore, the non-complex cognition of one thing in itself cannot cause non-complex cognition of another thing in itself, as has been said in the prologue of the first book. Hence no matter how clearly you may see the divine essence, you will never on this account see a donkey in itself, in such a way that one cognition is caused by the other. Therefore if non-complex cognition of a creature leads to the non-complex cognition of God, it can only be in a concept common to creatures and God. In this manner I concede that non-complex cognition of some creature in itself leads to the non-complex cognition of another in a common concept. For instance, through non-complex cognition of a whiteness that I have seen I am led to the cognition of another whiteness which I have never seen, since I abstract from the former whiteness a concept of whiteness which indifferently refers to the one or the other whiteness. In like manner, from an accident that I have seen I abstract the concept of a being (*ens*), which does not refer more to this accident than to substance, nor more to a creature than to God. Therefore in this concept there is no priority, though one thing in itself is prior to the other ; just as in the concept of 'man', Plato is not prior to Socrates, though Socrates in reality may be prior.

The first proof of John [i.e. Duns Scotus, for univocation] concerning a dubious and a certain concept holds in virtue of this argument, otherwise not. . . .

In the same manner the other argument of John holds : 'No object leads to the cognition of another object, unless it be virtually or essentially contained in it' ; for the

cognition of this accident virtually contains in it the non-complex cognition of God in a concept common to Him and others.

In the same manner the other argument holds, about removing imperfection from the wisdom of a creature and attributing to it what belongs to perfection. This just means abstracting from created wisdom a concept of wisdom which does not mention either a created or an uncreated thing, since mention of a created thing brings in imperfection. For that reason, to abstract from the imperfection in the wisdom of a creature is nothing else than to abstract from an imperfect creature a concept of wisdom which does not refer more to creatures than to what is not a creature, and then the result is attributable to God by way of predication. And what is thus abstracted is said to belong to perfection in so far as it can be predicated of God and can stand for Him. For if such a concept could not be abstracted from a creature, then in this life we could not arrive at a cognition of God's wisdom—e.g. that God is wisdom—through the wisdom of a creature any more than, through the cognition of a stone, we obtain a cognition that God is a stone. For just as the wisdom of a creature is contained virtually in God, so also a stone is contained virtually. Therefore, notwithstanding the fact that the distinction between the wisdom of a creature and the wisdom of God is as great as the distinction between God and a stone, and though in neither case do we have things of the same kind, nevertheless from created wisdom we can get by abstraction a concept common [to God and creature], but not from a stone.

When 'being' (*ens*) is said to be the subject of metaphysics, it is to be understood in this way. And this holds not only in regard to the word 'being', but also in regard to the concept 'being'. For, I ask, what does 'being' stand for when it is said that 'being' is the subject of metaphysics ? Not for a substance nor for an accident,

because each one of these propositions is false : 'A substance is the subject of metaphysics', 'An accident is the subject of metaphysics', etc. Therefore it stands only for itself, namely for the concept 'being' ; and this concept is the subject of metaphysics. Likewise, this is the meaning when 'being' is said to be divided into created and uncreated being. ' Being' stands only for the concept in the mind, not for substance or accident.

IX

THE PROOF OF GOD'S EXISTENCE

Sources:

1 *Quaestiones in lib. I Physicorum*, Q. CXXXII 129
2 *Quaestiones in lib. I Physicorum*, Q. CXXXIII 129
3 *Quaestiones in lib. I Physicorum*, Q. CXXXIV 131
4 *Quaestiones in lib. I Physicorum*, Q. CXXXV 132
5 *Quaestiones in lib. I Physicorum*, Q. CXXXVI 136
6 *Quodlibeta*, I, Q. I 139

[*The proof of the existence of God*]

1. *Whether in essentially ordered causes the second cause depends on the first?*

Yes : For in causes of this kind the second cause cannot cause an effect of the same kind as itself without the first cause, though the reverse is possible. For it is clear that Socrates cannot generate a man without the sun, but the sun can produce a man without Socrates, because it can do so by means of Plato ; therefore, etc.

On the contrary : If a man were created by God alone, then this man would not depend on the sun, and nevertheless in reference to the sun he would be a second cause in the generation of a man.

To this question I answer : There is a difference between essentially ordered causes and accidentally ordered causes, and partial causes concurring in the production of numerically the same effect. For in essentially ordered causes the second cause depends on the first for its first existence ; not, however, for its conservation. For instance, Socrates depends on Plato, since he cannot be naturally caused without Plato, his father ; but he is not conserved by Plato, because Socrates lives on when Plato is dead. However, in partial causes related to the same effect there is no order ; nor is one cause more dependent on the other than conversely. For instance, the object and the intellect are partial causes for the act of knowing, but neither one depends on the other, either for its existence or for its conservation. . . .

2. *Whether in essentially ordered causes the higher cause is more perfect?*

Yes : For these causes differ in kind, therefore one is more perfect than the other ; but of these the lower is not more perfect, therefore the higher one must be.

On the contrary : The sun is a higher cause [than man] as regards [the generation of] man, and nevertheless it is less perfect ; therefore, etc.

[*Answer* :] . . . First, I shall lay down two distinctions ; secondly I shall answer the question.

The first distinction is this : Some causes are total, others are partial. Second distinction : Something is said to be more perfect than another, in one sense because it is an absolutely perfect nature in itself, in another sense because a more perfect condition or predicate belongs to it.

To fulfil my second task I lay down three conclusions. The first is that the total higher cause is more perfect than an inferior cause. This is clear, for such a cause includes God, the sun and all partial causes of such and such an effect, except the posterior cause.

Second conclusion : A partial superior cause is not universally more perfect than a second cause if we take 'perfection' in the first sense. This is clear, for the sun is a superior partial cause in regard to the generation of a man ; nevertheless the sun is not more perfect than man. Yet the *first* superior cause is more perfect. . . .

Third conclusion : A superior cause is more perfect if we take 'perfection' in the second sense. This is clear, for the second cause is not capable of an effect of its own kind, if the superior cause does not cause the effect together with it. The reverse, however, is quite possible. For though Socrates cannot naturally produce a man without the sun, the sun, however, can produce a man without Socrates, because it can do it by means of Plato. Consequently the superior cause is more independent in its causality than the inferior cause. But independent causality is an aspect of perfection. Consequently, the causality of the superior cause is more perfect than that of the inferior, as regards independence.

3. *Whether the causality of essentially ordered causes must necessarily be simultaneous in order to produce the effect to which they are essentially ordered?*

Yes: For it is a contradiction that all should be essential causes of the same effect, and nevertheless the same effect could be naturally produced where some of them are excluded. For it follows that if an effect can be naturally produced without *A*, then *A* is not essentially required for its production, and consequently *A* is not its essential cause.

On the contrary: The sun can produce a worm both with and apart from a worm.

In reference to this problem, Duns Scotus maintains in the second distinction of the first book [of the *Sentences*] that it is necessary that one cannot act without the other.

But here are three contrary conclusions: The first is that an effect of the same kind which is produced by all causes together can sometimes be produced by one cause alone. This is clear. Worms generated by propagation and by putrefaction are of the same kind, as is manifest. Nevertheless, the worm produced by propagation is produced by all the essentially ordered causes together, whereas a worm produced by putrefaction is produced by the sun without the action of a worm.

Second conclusion: Sometimes a general cause can produce a perfect effect just as well alone as together with others. This is clear. Though a divisible effect produced by all causes together is more perfect than if it is produced by one cause alone—as is clearly true of heat caused by the sun and a fire together—nevertheless, when the effect is indivisible (like a substantial form, especially if the same bit of matter is concerned), then it can be just as perfect, when produced by one cause alone, as when caused by all together.

Third conclusion: Numerically the same effect as is caused by all agents together cannot be caused by one

alone. This is clear ; for, as will be explained later when we deal with motion, an effect numerically one demands a definite agent and a definite matter, so that the effect cannot be produced by another agent ; consequently numerically that effect, which is produced by all agents cannot be produced by one alone. Rather, they necessarily concur to the production of the effect. Nevertheless, an effect of the same kind can be sometimes produced by one cause alone, as is clear in the case of the worm. If Scotus did mean this, then he is right. However, he said the contrary. For according to him the very same persons would have been elect [for eternal life] who are now elect, even if Adam had not sinned ; but they would have had other fathers. According to him, therefore, the variation of an agent does not vary the effect, and consequently, according to him, numerically the same effect can have different equivocal causes, so that apart from one of them numerically the same effect can be produced. . . .

To the main argument, I concede the conclusion, if it is taken to refer to numerically the same effect, but not if it is taken to refer to specifically the same effect.

To the argument to the contrary I reply : Numerically the same effect is not produced, and cannot be produced naturally, by putrefaction and by propagation ; nor can numerically the same effect which is produced by propagation be naturally produced without the concurrence of its essentially ordered causes, though it can happen otherwise by the power of God.

4. *Whether a first efficient cause can be sufficiently proved from production as opposed to conservation?*

It can : For something is such as to be made, but not made by itself ; therefore, by something different ; concerning this other I ask as I did about the first : Is it a first efficient cause or is it such as to be made ? Now, we cannot go on *in infinitum*, therefore, etc.

On the contrary : We can go on with causes of the same kind [*ad infinitum*] for in this case the totality of the things that are caused is what comes first.

Scotus answers this question in the affirmative in the first question of the second distinction. He proves it as follows.

Essentially ordered effects have a cause ; therefore there is some cause which does not belong to this totality, otherwise one and the same thing would be the cause of itself.

Secondly : The totality of the things that are caused is dependent, but not upon something which is part of this totality ; otherwise a thing would be dependent on itself.

Thirdly : Otherwise, an infinity of essentially ordered causes would be in existence at the same time, since all the essentially ordered causes concur for causation ; if, therefore, there were an infinity of causes, an absurdity follows, etc.

Fourthly : What is prior is what is nearer to the first principle ; therefore where there is no first principle, nothing is essentially prior.

Fifthly : A superior cause is more perfect in its way of causing ; therefore a cause infinitely superior is infinitely more perfect ; such a cause, however, does not cause in virtue of another ; therefore, etc.

In the sixth place : [Causal] efficiency does not imply imperfection ; hence it can occur in some being without imperfection ; but if it does not occur in any being without dependence on something prior, then it does not exist in any being without imperfection ; hence a first efficient [cause] is possible.

In the seventh place : Otherwise, an infinity of accidentally ordered causes would be impossible ; for such an infinity cannot exist simultaneously, but only successively, one thing after another, so that the second

cause is caused by the first cause, without, however, depending on the first cause in causing; for a son generates in the same way whether his father be still living or dead. Such an infinity can have being only from some nature that endures to infinity, on which the whole succession and each part of it depends.

In the eighth place: No deformity is perpetuated except in virtue of something permanent which is not a part of this succession, because all successive things are of the same kind; therefore, there is something essentially prior on which everything in this succession depends, and that in an order different from that of the proximate cause which is a part of this succession. . . .

However, these reasons are not sufficiently conclusive in regard to production as specifically distinct from conservation.

Concerning the first reason to the contrary, I concede that the totality of things that are caused is itself caused; but someone basing himself only on natural reason would deny this reasoning, because he would say that one of the things that are caused is caused by another member of this multitude, and this again by another member of this multitude, and so on *ad infinitum*, just as is the case, according to the Philosopher, with accidentally ordered causes of which one can exist and be a cause along with another. For instance, one man is caused by another, and so *ad infinitum*. The opposite cannot be proved from production. In this case it does not follow further that one and the same thing is cause of itself, because this entire multitude is not caused by any one cause, but one member of this multitude is caused by one cause and another by another.

Concerning the second reason I say that as regards production it cannot be sufficiently proved that the entire group is dependent at the same time; this can be proved only from conservation. For someone not assuming conservation would say that so far as original

production is concerned one member of this totality is merely dependent on another member of this multitude, and this again on another, and so *ad infinitum* ; once produced it may not depend on anything else, except on a conserving cause, which is denied, however, in our case. In this case, then, the further conclusion does not follow, but the multitude depends on itself, in this sense that the multitude as a whole does not depend on some one thing, but it is only that one member depends on another and a second on a third, and so on.

To the third : Though everything which conserves either mediately or immediately coexists with the thing conserved, nevertheless not every thing which mediately or immediately produces a thing coexists with the thing produced. Therefore, in the order of productive beings we could go on *ad infinitum*, and in actuality they are finite [in number]. Hence, as before, it is clear that not all essentially ordered causes concur together in causing, though sometimes they do concur for conservation.

To the fourth : From production alone it can be proved only that something is accidentally prior, but not that something is essentially prior.

To the fifth : It is evident from what was said before that not every superior cause is more perfect, but frequently it is less perfect.

To the sixth : From production it cannot be sufficiently proved that [causal] efficiency does not imply imperfection ; for as regards mere production it cannot be proved that one efficient cause is not produced by another, and so *ad infinitum*.

To the seventh I reply : An infinity of accidentally ordered things can be kept in being without any nature enduring to infinity, on which the entire succession is dependent ; for it cannot be sufficiently proved as regards production, that one man cannot be produced by another as his total cause. In this case it would be said that one man is totally dependent on another man,

and he again on another, and so on, *ad infinitum* ; but he would not be dependent on something with an infinite duration. The opposite cannot be proved from production, though it can be proved from conservation.

To the eighth we can reply in the same manner. This succession is perpetuated, because one member is totally dependent on another member of the same kind ; and it cannot be proved by production, not even by total production, that this process could not go on *ad infinitum* unless there were some one permanent thing on which the whole infinity depends. For in so far as production is concerned, it is sufficient that one man is totally dependent on another in the line of efficient causes, and this man again on another and so on, *ad infinitum.*

To the main argument I reply : From the first production it cannot be sufficiently proved that we do not go on *ad infinitum* in efficient causes of which one is successively caused by the other ; but from this it does not follow that any actual infinity exists, as is clear from the aforesaid.

5. *Whether from conservation it can be sufficiently proved that there is a first efficient cause?*

No : For to conserve is to effect ; but a first efficient cause cannot be proved from efficiency, consequently neither can it be proved from conservation.

On the contrary : All the conserving causes simultaneously concur for the conservation of an effect ; if, therefore, in the order of conserving causes we go on *ad infinitum*, then an infinite number of things would be actually existing at the same time. This, however, is impossible, therefore, etc.

This question I answer briefly in the affirmative. Proof : Whatever is really produced by something, is also really conserved by something as long as it remains in actual

being—this is manifest. But this particular effect is produced—this is certain. Therefore it is being conserved by something as long as it remains in existence. About this conserving being I ask : Can it be produced by something else, or not ? If not, then it is the first productive cause, because every preservative cause is a productive cause. If, however, this preservative cause is produced by something else, then about that I ask as before. And so either this must go on *ad infinitum*, or we must stop at some being which conserves without being conserved by another in any way. And such an efficient cause is the first efficient cause. But we cannot go on *ad infinitum* in the order of preservative causes ; for everything that conserves something else, be it mediately or immediately, exists at the same time with that which is conserved. For that reason, every conserved being requires the actuality of everything that conserves it. But not every thing that is produced requires in actuality every thing that mediately or immediately produces it. Hence, though it is possible to admit that we go on *ad infinitum* in the order of productive causes without an actual infinity, nevertheless going on *ad infinitum* cannot be admitted in the order of conservation without an actual infinity.

But the following objection is raised. It seems that this proof is as evident about the first production as it is about conservation. The argument can be formulated as follows. Something is produced. I now ask : 'From what productive cause ?' Either it is something that produces and is not produced, and then we have the intended thesis, or it is produced by something else ; but this cannot go on *ad infinitum* ; therefore we must stop at something that produces and is not produced. Proof of the minor premise concerning things essentially ordered : In essentially ordered causes all causes are required at the same time for the production of the effect ; if, therefore, they were infinite in number, an

infinity of things would be actually existing. First, because the whole multitude of essentially caused things is caused, but not by some member of this multitude, since in that case, something would be cause of itself. Therefore it is caused by something which is not caused and which is outside the multitude of things that are caused. Likewise, in accidentally ordered things the entire multitude of caused things is caused, as is clear ; but not by something in this multitude, because then this would cause itself in causing the whole multitude. If this is the case, then either it is not caused, and, therefore, we have our intended thesis, or it is caused by essentially ordered causes, and then our first proof concerning essentially ordered causes applies.

I answer : From original production alone it cannot be sufficiently proved that we do not go on *ad infinitum*, at least in accidentally ordered causes, or, formally speaking, in essentially ordered causes.

To the first proof for essentially ordered causes I say, as was made clear before, that not all essentially ordered causes concur for the first production of the effect.

To both arguments that follow I reply that the whole multitude of both essentially and accidentally ordered causes is caused, but not by some one thing which is part of this multitude, or which is outside this multitude, but one part is caused by one thing which is part of this multitude, and another by another thing, and so on *ad infinitum*. Nor can the opposite be sufficiently proved from original production. And in this case it does not follow that one and the same thing causes the whole multitude, nor that one and the same thing causes itself, because no one member is the cause of all.

To the main argument I reply that from efficiency, in so far as it means that a thing receives existence immediately after non-existence, it cannot be proved that a first efficient being exists. Nevertheless, from efficiency, in so far as it means that a thing continues

in existence, it can well be proved. That is to say, it can be proved from conservation. Thus the answer to this question is clear.

6. *Can it be proved by natural reason that there is only one God?*

It can be proved: For one world has only one ruler, as is stated in the 12th book of the *Metaphysics*; but it can be proved by natural reason that there is only one world, according to Aristotle in the first book of the *De Caelo*; therefore by natural reason it can be proved that there is only one ruler; but this ruler of the world is God, therefore, etc.

To the contrary: An article of faith cannot be evidently proved; but that there is only one God is an article of faith; therefore, etc.

As regards this question, I shall first explain what is meant by the name 'God'; secondly I shall answer the question.

Concerning the first point I say that the name 'God' can have various descriptions. One of them is: 'God is some thing more noble and more perfect than anything else besides Him'. Another is: 'God is that than which nothing is more noble and more perfect'.

Concerning the second point, I maintain that if we understand 'God' according to the first description, then it cannot be demonstratively proved that there is only one God. The reason for this is that it cannot be evidently known that God, understood in this sense, exists. Therefore it cannot be evidently known that there is only one God. The inference is plain. The antecedent is proved in this way. The proposition 'God exists' is not known by itself, since many doubt it; nor can it be proved from propositions known by themselves, since in every argument something doubtful or derived from faith will be assumed; nor is it known by experience, as is manifest.

Secondly I maintain: If it could be evidently proved

that God exists—'God' being understood in the present sense—then the unicity of God could be evidently proved. The reason for this is the following : If there were two Gods, let us call them *A* and *B*, then in virtue of our description God *A* would be more perfect than anything else, therefore God *A* would be more perfect than God *B*, and God *B* would be more imperfect than God *A*. But God *B* would also be more perfect than God *A*, because according to our assumption God *B* would be God. Consequently God *B* would be more perfect and more imperfect than God *A*, and God *A* than God *B*, which is a manifest contradiction. If, therefore, it could be evidently proved that God exists —'God' being understood in the present sense—then the unicity of God could be evidently proved.

Thirdly I maintain that the unicity of God cannot be evidently proved if we understand 'God' according to the second description. Yet this negative proposition, 'The unicity of God cannot be evidently proved', cannot be proved demonstratively either. For it cannot be demonstrated that the unicity of God cannot be evidently proved, except by rebutting the arguments to the contrary. For instance, it cannot be demonstratively proved that the stars make up an even number, nor can the Trinity of Persons be demonstrated. Nevertheless, these negative propositions, 'It cannot be demonstrated that the stars make up an even number', 'The Trinity of Persons cannot be demonstrated', cannot be evidently proved.

We must understand, however, that it can be proved that God exists, if we understand 'God' according to the second description. For otherwise we could go on *ad infinitum*, if there were not some one among beings to which nothing is prior or superior in perfection. But from this it does not follow that it can be demonstrated that there is only one such being. This we hold only by faith.

The answer to the main objection is clear from the aforesaid.

X

GOD'S CAUSALITY AND FOREKNOWLEDGE

Sources:

1 *Quodlibeta,* III, Q. iii 143
2 *Ordinatio,* D. XXXVIII, Q. *unica* 148

[*God's causality and foreknowledge*]

1. *Whether God is the efficient cause of all things outside of Him?*

No: For God is not the efficient cause of logical entities; otherwise such entities would actually exist in the universe.

On the contrary: Everything that is not from God as its efficient cause, is uncaused; and everything of this nature is God; therefore everything different from God is from God as its efficient cause.

Concerning this question, I first shall distinguish senses of the term 'cause', and secondly I shall answer the question.

Concerning the first point I say that one sort of cause is immediate, whether it be a total or a partial cause; whereas another is mediate. The latter is called 'cause' in that it is cause of a cause, just as Abraham is said to be father and cause of Jacob, since he is the father of his father. However, I take the question as regarding not the immediate cause only, but both mediate and immediate causes.

Concerning the second point I first state that God is the mediate or immediate cause of all things. Though this cannot be demonstrated, yet I argue persuasively for it on the basis of authority and reason.

By authority: In the first chapter of the St. John's Gospel it is said: 'All things were made through Him', etc. This term 'all things' cannot be understood of God, since the distribution of this term is not here extended to God. Hence the meaning is that all things *besides* God are made through Him. Again in the Creed: 'I believe in God the Father almighty'; and then follows 'creator

of heaven and earth, of all things visible and invisible', etc. Again, in the Decretal *Extra de summa Trinitate et fide catholica, firmiter* : 'He is the creator of all things visible and invisible, corporeal and incorporeal'.

Furthermore, I prove this by reason in the following manner : All things essentially depend on God. This would not be true if God were not the cause of them. Again, if God were not the efficient cause of all things, then something different from God would be uncreated, or one could go on *ad infinitum* in the series of causes. For let me select something which you do not admit to be caused by God and let me ask : Is it caused or uncaused ? If the first is conceded, I ask again about its cause, and about the cause of that in the same manner, and so *ad infinitum*. If the second alternative is conceded, then I have the intended thesis.

Secondly, I state that God is the immediate cause of all things. I prove this as follows. Everything different from God depends more on God than one creature on any other creature ; but one creature is so dependent on another that this other is its immediate cause ; therefore, etc.

Furthermore, if God were not the immediate cause of all things, this should be true above all for a wrongful action. But this case raises no difficulty, since numerically the same act may be caused by one cause with guilt and by another cause without guilt. For instance, the same act of will comes from a natural cause, viz. cognition, and from a free cause, viz. the will. Therefore the same act may have God as its immediate part-cause without His incurring guilt, and also be caused by a will that does incur guilt.

Nevertheless, some doubts arise against this solution. First : Impossibilities are not from God and nevertheless they are not God.

Second : Fictions and logical entities as opposed to real entities are not God and are not from God.

Third : The existence of things as thought-objects, and likewise sins, are not from God.

Fourth : Propositional truths, and also privations, are not God, nor are they from God as their efficient cause.

To the first of these doubts I answer that all impossibilities are from God, because all impossibilities are either complex or non-complex terms, and all such terms are from God.

You may object that the chimera is an impossibility, and nevertheless is not from God, because if it were from God, it would be something. I answer : The proposition 'A chimera is possible or impossible' has to have its senses distinguished. For 'possible' in one sense can mean all that which can be, whether it be complex or non-complex. In this sense the proposition 'Man is a donkey' is possible since the proposition can exist. In this way 'chimera' (taken in simple *suppositio*) can be and is possible, because such a concept or word can exist. In another sense, 'possible' is predicated of a proposition that is not impossible, and in this sense it is not predicated of 'chimera'. Likewise 'impossible', in one sense, is predicated of a term which in its signification is equivalent to a phrase about which no true affirmative predication is affirmed. In this sense a 'chimera' (in personal *suppositio*) can be made. In this manner it is not improper [to say] that the same term is possible and impossible according to a different *suppositio*. Similarly the propositions 'A chimera is something', 'A chimera is a being', are false in their literal meaning, since 'chimera' has personal *suppositio*. However, if it has simple *suppositio*, both these propositions are true.

To the second I reply that fictions are from God, because some of them are mental entities, some vocal, some written signs, and all of these are real beings and thus are from God, just as lies are from God, since they are real entities. Likewise logical entities are from

God, since they are mental words, either non-complex or complex.

You object, however, that logical being (*ens rationis*) is contrasted with real being (*ens reale*), hence they are not the same. I answer first with the Commentator on the sixth book of the *Metaphysics*, *ad fin.* : 'The Philosopher speaks of beings which are propositions. They are contrasted with beings which of themselves fall under the categories ; and also with non-complex terms. Later the Philosopher divides non-complex terms into the ten categories'. We could answer in another way by saying that this is the division of a name in relation to the things it signifies, and not by opposites. And there is nothing improper in the fact that here subdivisions coincide. For in like manner the Philosopher, in the first book of the *Prior Analytics*, divides 'contingent' in general into 'contingent as regards being and non-being', 'necessary' and 'possible'. Nevertheless what is contingent as regards being and non-being is possible and what is necessary is possible also. Now it is the same in our case.

To the third I reply that there are no such thought-objects (*esse objectiva*) ; they neither are nor can be real beings. Nor is there another little world made up of thought-objects. But whatever is not a thing is absolutely nothing, as St Augustine says in the first book of his *De doctrina Christiana*.

If you object that according to St Augustine in the *De Trinitate* I can mentally picture such a man as I have seen, I reply : Such a mental picturing is an act of thinking which refers to all men ; and if nothing in reality corresponds to it, it is a faulty act of thinking.

In a similar manner, the objection concerning sins can be answered. Everything that is a sin is from God. But God does not sin, since He is not obliged to do the opposite of that which is a sin, because He is debtor to no one.

To the fourth I reply : privations, being intelligible,

are something, because they are either concepts of the mind or words or things outside the mind ; for it seems that 'blind' and 'blindness' signify absolutely the same and can stand for the same. Therefore, just as we concede that a blind man is something outside the soul, so also is blindness, provided it has personal *suppositio* ; not, however, if it has simple *suppositio*.

To the other part of this objection, that concerning truth, I reply : the truth of the proposition 'God causes nothing' can be caused by God, since the truth of this proposition is only the proposition itself, and that can be caused by God.

If you reply, 'Let us assume that this possibility is a fact', I answer, it is not possible to do so, since assuming it as a fact involves a contradiction, viz. that God causes nothing, and that God causes something. For if it is assumed as a fact, then this proposition is true, 'God causes the truth "God causes nothing" ;' consequently, God causes something. But if God causes the truth 'God causes nothing', then the proposition 'God causes nothing' is true. An example may explain this. The proposition 'Something white can be black' is true ; nevertheless, the possibility cannot be assumed as a fact, since then the proposition 'Something white is black' would be true. Another answer would be the following : If our proposition is assumed as a fact, it must not be done like this, 'God causes this truth', but like this, 'God causes this proposition (for which the term "truth" stands): "God causes nothing".' But in that case the proposition will not be truth but falsity ; just as the proposition, 'Something white can be black', has to be assumed to be a fact thus, 'This proposition is possible : "Socrates (for whom 'white' stands in fact) is black".'

The answer to the main argument is clear from the aforesaid.

God's foreknowledge of future contingent facts

2. Therefore I reply to the question that it has to be held without any doubt that God knows all future contingent facts evidently and with certainty. But to explain this evidently, and to express the manner in which He knows all future contingent facts, is impossible for any intellect in this life.

And I say that the Philosopher would maintain that God does not know all future contingent facts evidently and with certitude, and he would maintain this for the following reason : That which is not true in itself cannot be known at that time when it is not true. But a future contingent fact simply depends on a free power and hence is not true in itself, because, according to the Philosopher, no reason can be assigned why one side of the contradiction is true rather than the other, and therefore either each part is true, or neither one is true. But it is not possible that each part be true ; therefore neither part is true, consequently neither part is known as true.

This proof is conclusive, according to the way of the Philosopher, only as regards facts which are in the power of the will. As regards those facts which are not in the power of the will but which simply depend on natural causes, as for instance that the sun will rise, and the like, the argument is not conclusive. The reason for this is that a natural cause is determined to one side [of a contradiction], nor can any natural causes be impeded except by a free cause, by which, however, they can be impeded only in regard to one determinate effect, not in regard to every effect.

Notwithstanding this argument, it has to be held that God evidently knows all future contingent facts. The manner in which he knows them, I, however, do not know. Yet it can be said that God Himself or the divine

essence is an intuitive cognition both of Himself and of all things which can or cannot be made, and that this intuitive cognition is so perfect and so clear that it is also an evident knowledge of past, future and present facts. Just as our intellect is able to know contingent propositions from our intuitive intellectual cognition of their terms, so the divine essence itself is an intuitive cognition by which are known not only necessary truth and contingent truth about a present fact, but also which side of a contradiction will be true and which will be false. The reason for this, perhaps, is not determination by God's will. But even if we made the impossible assumption that God's will is not the total or partial effective cause of contingent effects, and nevertheless the divine cognition remained just as perfect as it is now, that cognition would still be the means by which God would evidently know which side of a contradiction was going to be false and which true. And this is probably not because the future contingent facts are present to Him, nor because of ideas that are the means of this knowledge, but because of the divine essence or the divine knowledge, which is a cognition by which He knows what is true and what is false, what was true and what was false, what will be true and what will be false.

Although this conclusion cannot be proved by any *a priori* natural reason possible to us, yet it can be proved from authentic texts of the Bible and from the saints, which are well known. But I omit them for the present.

But for certain members of the Faculty of Arts it must be pointed out that no matter how much God knows about all future contingent facts, and as to which side of a contradiction will be true and which false, nevertheless the proposition 'God knows that this side will be true' is not a necessary but a contingent proposition. This means that no matter how true the proposition 'God knows that this side of the contradiction will be true' may be, nevertheless it is possible that this never

was true. And in this case there is a possibility of the other side without any succession, because it is possible this proposition should never have been true. But it is different as regards a created will. For after a created will has had an act it is not possible that it should later on be true to say that it never had this act.

XI

PHYSICS AND ETHICS

Sources:

1	*Summa totius logicae,* I, c. xliv	153
2	*Reportatio,* II, Q. xxvi, N *sqq.*	155
3	*Quodlibeta,* I, Q. x	157
4	*Quodlibeta,* III, Q. xiii	160

On quantity

1. There is another opinion concerning quantity which, as it seems to me, is in accordance with Aristotle's mind, be it heretical or Catholic. I will explain it, though I do not assert it. Hence, when I assumed this opinion while writing on the philosophy of Aristotle, I did not write it as my own opinion, but as Aristotle's, which I have explained as seemed right to me. In the same manner I shall now explain it without asserting it.

This is also the opinion which many philosophers held and still hold, namely that no quantity is really distinct from substance and quality, regardless of whether such propositions as 'Substance is quantity', 'Quality is quantity', are to be admitted or not.

According to this opinion continuous quantity is to be explained as follows : Continuous permanent quantity is nothing but a thing with one part locally distant from another part. Therefore the two expressions 'permanent quantity' and 'a thing having part distant from part' are so much equivalent in signification that the terms are convertible, unless there is some syncategorematic mode or some determination equivalently included in one of such expressions which prevents their convertibility and prevents one from being predicated of the other. For this reason, when a substance (and, likewise, when a quantity) has part locally distant from part, then some quantity is nothing other than a substance, and some quantity is nothing other than a quality. Nor does it seem to be much in harmony with theology to state that God cannot make these parts of a substance to be locally distant unless He joins some other non-relative reality (*rem absolutam*) to them. If He can do this, then this substance has truly part distant from part without a non-relative reality being added to it, and consequently

it will be quantitative without there being another non-relative reality. The same argument can be made in regard to quality. Since, therefore, a substance can be quantitative apart from any quantity which is a different thing from it, and the same is true of quality, a quantity which is midway between substance and quality seems to be entirely superfluous.

For this reason they say that there is no quantity different from substance or quality, just as there is no thing with part locally distant from part except a substance or quality. Hence concerning the Sacrament of the Altar they maintain that after the consecration of the body of Christ a quantity which was really the substance of the bread was there before, but does not remain ; besides this, however, there remains a quantity which is identical with a quality ; but there is no quality that has this quantity as a subject of inherence. Rather, all the accidents remaining after the consecration remain along with the body of Christ without any subject, since they subsist by themselves. This is their opinion concerning continuous quantity.

Concerning discrete quantity they maintain that number is nothing but the actual numbered things themselves. Hence they say that just as unity is not an accident added to the thing which is one, so number is not an accident of the things which are numbered. We can show that unity is not an accident added to the thing which is one. For if it is an accident, then according to all it must be either a relative or a non-relative accident. It is not a relative one, since it cannot have any real term of relation ; for in order that something should be one it need not be one *of* something, nor one *for* something, and similarly for the other cases used in predicating a relation. Nor is it a non-relative accident, for then it would be either a quality, which is certainly false, or it would be a quantity, and then either a continuous or discrete quantity, both of which are manifestly

false. It remains, therefore, that unity is not an accident really distinct from that which is one, and added to it in reality outside the mind. For the same reason, number is not an accident added to the numbered things.

Concerning place and time they maintain likewise that they are not distinct things. But about that we inquired in the book of *Physics*. Concerning speech they assert that it is nothing but the words uttered.

In consequence, those who hold the aforesaid opinion have to maintain that point, line and surface, and body, and number are not things wholly and really distinct, neither amongst themselves, nor from substance and quality. Nevertheless, according to them, in spite of the identity of the things signified by all such terms these predicates are distinct, and are distinct species of quantity. For sometimes predicates signify the same objects and nevertheless are distinct to such an extent that it is impossible to predicate one of the other. The terms 'man' and 'men' signify the same, nevertheless the proposition 'A man is men' is impossible. It is the same in our case. All of these terms signify the same things and nevertheless they are different species and different predicates.

[*On projectile motion*]

2. One other point has to be noted. There is a great difficulty concerning the moving and efficient principle in projectile motion. It cannot be the projecting body, since this body can be destroyed while the motion is still going on. Nor can it be the air, since the air may be being moved in the opposite direction, as when an arrow meets a stone [moving in the opposite direction] ; nor can it be some power in the [projected] stone. For, I ask, by what is this power caused ? Not by the projecting body, because a natural agent which is brought equally near to its object always causes an effect in the

same manner. Now the projecting body, in regard to every absolute or relative feature of it, can be brought near to a stone in the same manner as when it moves the stone, and nevertheless not move the stone. For my hand can be moved slowly and brought near to a body, but it does not move it from its place. My hand can also be moved swiftly and with an impetus, and be brought near to the same body as before. But now it causes a motion, whereas in the former case it did not. Therefore that power which you assume cannot be caused by something absolute or relative in the projecting body. Nor can it be caused by the local motion of the projecting body, since local motion has only the effect of bringing the agents near to the objects they act upon, as we have said many times before. But every positive feature of the projecting body is equally brought near the projected body in slow motion and in fast motion.

For that reason I maintain, that in such motion as occurs through the separation of a movable object from its first projecting body, the moving agent is the very thing that is moved and not some power in it, whether absolute or relative, so that this mover and the thing it moves are absolutely indistinguishable.

If the opponent says that the new effect has some cause ; but local motion is a new effect, etc., I answer : A local motion is not a new effect, neither an absolute nor a relative one. I maintain this because I deny that position (*ubi*) is something. For motion is nothing more than this ; the movable body coexists with different parts of space, so that it does not coexist with any single one while contrary statements are made true. Therefore, though every part of the space which the movable body traverses is new in regard to the moving body—in so far as the moving body is now traversing these parts and previously it was not—nevertheless no part is new without qualification. About this we have spoken else-

where. For it would be astonishing if my hand caused a power in a stone through coming into contact with the stone by local motion.

[*The existence of an intellective soul*]

3. *Whether it can be demonstrated that the intellective soul is a form of the body?*

It can: For we experience that an act of intellect occurs in us; and the act of intellect is a human activity and therefore it has an efficient cause and a subject of inherence; now, in our case this cannot be a separate intelligence, since we cannot experience within ourselves the activity of such a substance; nor could such an activity belong to a composite substance; hence the subject of inherence of this activity is something that belongs to man [as a part]: now this is not matter, therefore it must be a form.

On the contrary: The intellective soul is an incorruptible form; hence it is not a form of a corruptible body.

Concerning this question there are two problems. One, whether we could perform an act of intellect by the intellective soul, even if it were not a form of the body. The other, whether it could be evidently known either by reason or experience, that we do perform an act of the intellect, if we understand by an act of the intellect an act proper to an immaterial substance such as we assume the intellective soul to be, namely, a substance which is incapable of being generated or corrupted, and which exists entire in the entire body and entire in each part.

As regards the first problem, it seems that we can have an act of intellect by the intellective soul, even if it were not the form of the body. For by communication of attributes many properties are attributed to one thing

through another which is neither its matter nor its form nor a part of it, as we say that something is ascribed to somebody else in respect of his instrument or his clothes or the like. For instance, we call this man an oarsman (from his oar), or a digger, and another is said to be clothed or to be shod or to be armed. And we say that this man touched another because his linen or his weapons touched him. Such is the communication between the Son of God and the assumed nature, where neither is a form. Hence, in the same manner, something can be attributed to a body that is moved in respect of what moves it, without this mover being its form. An instance of this is manifest in the angel of Tobias. Because this angel was a kind of mover, the composite of the angel and an assumed body was said to eat, to drink, to walk, to think and to judge. Hence even if the soul were only the mover of the body and by no means its form, it could still be said of us that we understand by the intellective soul.

Concerning the second problem, I maintain that if we understand by 'intellective soul' an immaterial and incorruptible form which exists entire in the entire body and entire in each part, it cannot be evidently known by reason or experience that such a form exists in us, nor that the understanding proper to such a substance exists in us, nor that such a soul is a form of the body. Whatever the Philosopher thought of this does not now concern me, because it seems that he remains doubtful about it wherever he speaks of it. These three things are only matters of belief.

It is clear that these things cannot be demonstrated ; for every reason by which we try to prove them assumes something that is doubtful for a man who follows only his natural reason. Neither can they be proved by experience ; for we experience only acts of intellect and the will and the like. But a man following reason and experience would say that all these are operations and

impressions caused and received in that form by which, according to him, man is distinct from brute animals. Though this form, according to faith, is the intellective soul, which is an incorruptible form, nevertheless such a man would maintain that it is an extended and corruptible and generable form. Nor does it appear that experience argues another form.

If you ask whether it can be evidently proved that this form, which a man following reason establishes from experience, is the form of the body, I answer that it can be done, perhaps by this means: Every compound different in species from another compound differs from it either totally or in part. But man differs in species from a donkey, although not totally, since they have matter of the same kind. Therefore they differ only in part. But a man and a donkey do not differ in matter, therefore they differ by their form. But perhaps some doubtful points are assumed in this proof.

If, however, it is assumed (as we assume according to the truth) that the intellective soul, which is an immaterial and incorruptible form, exists in us and that we understand by means of it, then it is more reasonable to maintain that it is the form of the body and not only its mover. For if it were only its mover, then it would move the body either by local motion or by motion of alteration. Not in the first manner, for then it would move equally the body of a boy and that of a grown man; likewise, in order to move the body by local motion, a soul which is form of the body is sufficient; hence it is superfluous to assume another mover. Nor does it move the body in the second manner [by alteration], since the other agents which are corporeal are sufficient for every such alteration. Hence such a mover is superfluous. . . .

In regard to the main argument, one who followed natural reason would concede that we experience an act of understanding in us, but would maintain that it is

an act of a corporeal and corruptible form. Consequently he would say that such a form would inhere in extended matter. However, we do not experience in ourselves that act of understanding which is the activity proper to an immaterial substance. Hence from an act of understanding we do not conclude that such an incorruptible substance exists in us as a form. Or perhaps if we did experience that such an act of understanding existed in us, we could not conclude any more than that its subject exists in us as a mover ; not, however, as a form.

[*The basis of morality*]

4. *Whether only an act of will is necessarily virtuous or vicious?*

No : For every act of will can be elicited with a bad intention ; hence every act of will can be bad.

On the contrary : To love God is an act that is only virtuous and nothing but virtuous ; hence this act is only virtuous.

I reply to this question : The exclusive proposition found in the formulation of this question is exponible as a pair of propositions. One is negative, viz. 'No act different from the act of will is necessarily virtuous'. The other is affirmative, viz. 'Some act of the will is necessarily virtuous'.

Concerning the negative part of the explanation, I maintain that this proposition is simply true. For every act other than an act of will which is in the power of the will is good only in such a manner that it can be bad because it can be performed for a bad end and with a bad intention. Furthermore, any other act can be performed naturally and not freely ; and no such act is necessarily good. Again, every act other than an act of will can be brought about by God's sole action ;

consequently it is not necessarily virtuous for a rational creature.

Furthermore, every act, remaining identically the same, can be indifferently laudable or blameworthy ; and it can be first laudable and afterwards blameworthy inasmuch as it can be successively in accordance with a righteous and with a vicious will. This becomes clear if we consider the act of going to church, first with a good intention, and then with a bad intention.

Furthermore, no act is virtuous or vicious unless it is voluntary and in the power of the will, because a sin is a sin only because it is voluntary ; but another act can be in the power of the will at first and then afterwards beyond the power of the will. For instance, in the case where someone voluntarily jumps off a precipice, and then repents and has an act of not willing his fall, and that meritoriously for God's sake ; but the fall itself is not any more in the power of the will ; hence this fall is not necessarily vicious.

Concerning the affirmative part of the explanation I maintain : First, literally speaking, no act is necessarily virtuous. Proof : No act exists necessarily ; and consequently, no act is necessarily virtuous. Again, every act can be performed by God's sole action ; consequently it is not necessarily virtuous, since such an act [caused by God] is not in the power of the will.

However, another meaning can be attached to saying that an act is virtuous, viz. that it cannot be vicious while God's commandment stands ; or, again, that such an act cannot be caused by a created will without being virtuous. If we understand 'virtuous act' in this sense, then I maintain that an act may be necessarily virtuous. Proof : It is impossible that any contingently virtuous act, that is an act which can be called indifferently virtuous or vicious, can be determined to be a virtuous act, except by reason of another necessarily virtuous act. This is

proved as follows : A contingently virtuous act, let us say an act of walking, is determined to be a virtuous act by its conformity with another act. About this second act I ask : Is it necessarily virtuous in the sense explained ?—and then we have our intended thesis—or is it contingently virtuous and determined to be a virtuous act by some other virtuous act ? About this third act we have to ask as before. Thus, either we go on *ad infinitum*, or we stop at some necessarily virtuous act.

Thirdly I maintain that a necessarily virtuous act, in the sense explained above, is an act of will, since the act by which God is loved above all and for His own sake is such an act. For this act is virtuous in such a way that it cannot be vicious, nor can this act be caused by a created will without being virtuous. First, because everyone is bound (according to time and place) to love God above all, and consequently this act cannot be vicious ; secondly, because this act is the first of all good acts. Furthermore, only an act of will is essentially laudable or blameworthy. Again, according to the saints, every act is laudable or blameworthy only because of its good or bad intention ; but an intention is an act of the will ; therefore, etc. Again, according to St Anselm, only the will is punished, because only the will sins ; therefore, etc.

The objection may be made : God can command that He be not loved for a certain time, because He can command that the intellect be occupied with study and the will likewise, so that at this time it cannot think anything about God. I now assume that the will then performs an act of loving God ; then this act is either

virtuous—but that cannot be said, since it is performed against the divine command—or it is not virtuous, and then we have our intended thesis that an act of loving God above all is not virtuous.

I answer : If God could command this—and it seems that He can do it without contradiction—then I maintain that the will in this situation cannot perform such an act, because merely by performing such an act the will would love God above all and consequently would fulfil the divine precept. For to love God above all means to love whatever God wills to be loved. But by the mere fact of loving God in this way one would not (according to our assumption) fulfil the divine command. Consequently by loving God in this manner one would love God and not love God ; one would fulfil the precept of God and not fulfil it. However, one could have an act of a simple and natural love, which is not the same as the love of God above all ; just as, if someone did not believe in God, he could not love Him, since nothing can be loved unless it exists or can exist.

Fourthly I maintain that only a habit of the will is essentially and necessarily virtuous, since every other habit indifferently inclines to laudable and blameworthy acts.

In regard to the main argument I deny the premise, for there is an act of the will which, as it is clear from the aforesaid, cannot be performed with a bad intention.

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